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SESSIONAL PAPERS

VOLUME 8

THIRD SESSION OF THE NINTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1903

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☞See also Numerical List, page 5

ALPHABETICAL INDEX

OF THE

SESSIONAL PAPERS

OF THE

PARLIAMENT OF CANADA

THIRD SESSION, NINTH PARLIAMENT, 1903.

A

Accident at West Lorne Station 114
Adulteration of Food 14
Agriculture, Annual Report..... 15
Alaska Boundary 149
Archives, Canadian 18
Auditor General, Annual Report..... 1
Automatic Grain-Weighers..... 80

B

Banks, Chartered 6
Banks, Unpaid Balances in..... 7
Barnes, Amos..... 133
Bonds and Securities..... 61
British Canadian Loan and Investment Co. 43
British Columbia Industrial Disputes 36*a*
British Columbia Salmon Commission..... 131
British Columbia, Statutes Disallowed 78, 78*a*
Brunet, Arthur 51, 51*a*

C

Canadian Contingents to South Africa ... 35*a*
Canadian Northern Railway..... 115
Canadian Pacific Railway :
  Business with Interior Department 48
  Exemption from Taxation 79
  Lands sold by..... 55
Carlton Point, Pier at..... 118
Cattle, Canadian 50
Cattle-guards 150
Cattle, Killed on Railways..... 74
Census Returns..... 49, 82
Chartered Banks..... 6
Civil Service :
  Appointments and Promotions..... 60
  Examiners..... 31
  Insurance..... 38
  List..... 20
  Superannuations 39
Claims by Quebec 144
Cold Storage Service..... 102, 102*a*
Colonels and Lieutenant-Colonels 99

C

Colonial Conference, 1902. ..... 29*a*, 142
Commission *re* Canadian Products 93
Culbute River Surveys 106
Customs Department..... 115
Criminal Statistics..... 17

D

Detroit River..... 125
Disallowance..... 66, 67, 78, 78*a*
Dividends unpaid in banks 7
Dixon, F. A..... 76
Dominion Lands 46, 47
Doncaster Indian Reserve 70
Dry Dock, Montreal..... 104

E

Electric Light, Inspection of 13
Emigration from Europe 146
Estimates..... 3 to 5*e*
Euxine, Schooner 92
Experimental Farms 16
Export of Wood 129, 130

F

False Creek..... 126
Farran's Point Canal..... 83
Fast Steamship Service 101
Fisheries, Annual Report..... 22
Fishery Rights..... 138
Fitzgerald, W. W..... 69
French River Surveys..... 106

G

Gas, Inspection of..... 13
Gaynor, John Francis..... 90
Geographic Board..... 21*a*
Geological Survey Report 26
German Tariff 10*a*
Government Offices in Ottawa 105
Governor General's Warrants 37

G

Grain Act ... 151
Grain-Weighers ... 80
Grand Trunk Railway ... 73
Greene, Benjamin D ... 90

H

Half-breed Commission ... 84, 84*a*
Harbour Commissioners ... 23
Hog Cholera ... 77
Hutton and Hughes Correspondence ... 94

I

Immigration Agents ... 56
Imperial Government Supplies ... 128
Indian Act ... 53
Indian Affairs, Annual Report ... 72
Indian Lands ... 81
Indian Reserve, Doncaster ... 70
Indian Reserves, Schedule of ... 27*a*
Industrial Disputes ... 36*a*
Inland Revenue, Annual Report ... 12
Insurance, Abstract ... 9
Insurance, Annual Report ... 8
Intercolonial Railway :
- Accident near Windsor Junction ... 96
- Freight Cars ... 140
- Freight Rates ... 87
- Goods duty free ... 91
- Ties ... 141

Interior, Annual Report ... 25
Interior Department Officials ... 110
International Boundary ... 65
Irrigation in the North-west ... 25*a*, 45

J

Jésus River ... 107
Justice, Annual Report ... 34

K

Kars, N.B ... 127

L

Labour, Department of, Annual Report ... 36
Lake Erie ... 125
Lake Nipissing Surveys ... 106
Lakes Simcoe and Couchiching ... 119
L'Assomption Post Office ... 122, 122*a*
Law Library, Privy Council ... 58
Library of Parliament, Annual Report ... 33
List of Shipping ... 21*b*

M

Manitoba School Lands ... 117
Manitoba School Question ... 152, 153
Marine, Annual Report ... 21
Martineau Defalcation ... 29*b*, 29*c*, 29*d*
Mathurin, Joseph A ... 112

M

Measures, Inspection of ... 13
Militia and Defence, Annual Report ... 35
Montreal Dry Dock ... 104
Montreal Port ... 123
Montreal Subway Co ... 75
Montreal, Wharf in ... 108
Mounted Police ... 28
Mutual Reserve Life Insurance Co ... 147, 147*a*

Mc

McNee, Archibald ... 134

N

National Transcontinental Railway ... 143
New Brunswick Representation ... 54
Newspapers, Money paid to ... 72, 72*a*
Nord, Rivière du ... 135
North Atlantic Trading Co ... 146
North-west Irrigation ... 25*a*, 45
North-west Mounted Police ... 28
North-west Territories, Autonomy ... 116, 116*a*, 116*b*
North-west Territories, Customs and Excise ... 137
North-west Territories, Naturalization in ... 136

O

Ottawa, Government Offices in ... 105
Ottawa Improvement Commission ... 40
Ottawa River Surveys ... 106
Over-rulings of Treasury Board ... 42

P

Pacific Cable ... 89
Paradis, Amable ... 88
Penitentiaries, Annual Report as to ... 34
Police, North-west Mounted ... 28
Postmaster General, Annual Report ... 24
Privy Council, Law Library for ... 58
Provincial Subsidies ... 68
Public Accounts, Annual Report ... 2
Public Printing and Stationery ... 32
Public Works, Annual Report ... 19
Pulp wood from Three Rivers ... 111

Q

Qu'Appelle, Long Lake and Saskatchewan Co ... 132, 132*a*, 132*b*
Quebec Bridge ... 148
Quebec Claims ... 144
Quebec Harbour Improvements ... 103
Quebec Military Riding School ... 109
Quebec-New York International Boundary ... 65

R

Railway Accidents ... 74
Railways and Canals, Annual Report ... 20
Rifle Factory ... 52
Rivière du Nord ... 135

S

School Lands in Manitoba 117
School Question, Manitoba 152, 153
Schooner *Euxine* 92
Secretary of State, Annual Report 29
Shareholders in Chartered Banks 6
Shipping, List of 21*b*
Short Line Railway 139
South Africa, Canadian Contingents to 35*a*
South Eastern Valley Railway 85
Standard Grain-Weigher 80
Steamer Service to South Africa 124
Steamship Service, Fast 101
St. Lawrence River 123
Strikes during past year 100
Subsidies to Provinces 68
Sugar Imports 97
Supplies for Imperial Government 128

T

Terrebonne Post Office 71
Three Rivers, Pulp wood from 111
Tobacco Trade 62
Toronto Public Works 121
Trade and Commerce, Annual Report 10
Trade and Navigation, Annual Report 11
Trade Unions 59
Transportation, Commission *re* 93
Treasury Board Over-rulings 42
Trent Valley Canal 86

U

Unclaimed Balances in Banks 7
Unforeseen Expenses 41
United Counties Railway 85
United States, Government Works of 125

V

Vegetables from United States 64
Vessels, List of 21*b*
Volunteer Force 99

W

Warrants, Governor General's 37
Weights, Measures, &c 13
West Lorne Station, Accident at 114
Wharf in Montreal 108
Winter Steamers 98
Wood for Export 129, 130
Woodstock, N.B., Drill Shed 95, 95*a*
Woodstock, N.B., Post Office 120

Y

Yukon:
A. N. C. Treadgold 63, 63*a*
Newspapers, Money Paid to 57
Ordinances 44
Regulations 145

See also Alphabetical Index, page 1.

LIST OF SESSIONAL PAPERS

Arranged in Numerical Order, with their titles at full length; the Dates when Ordered and when presented to the Houses of Parliament; the Name of the Member who moved for each Sessional Paper, and whether it is ordered to be Printed or Not Printed.

CONTENTS OF VOLUME A.

Census of Canada, 1901. First Volume ..... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 1.

(This volume is bound in two parts.)

1. Report of the Auditor General, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. W. S. Fielding.. ..... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 2.

2. Public Accounts of Canada, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. W. S. Fielding..... *Printed for both distribution and sessionnl papers.*

3. Estimates of the sums required for the services of Canada, for the year ended 30th June, 1904. Presented 16th March, 1903, by Hon. W. S. Fielding.. *Printed for both distribution and sessional papers.*

4. Supplementary Estimates for the year ending 30th June, 1903. Presented 31st March, 1903, by Hon. W. S. Fielding..... *Printed for both distribution and sessional papers.*

5. Further Supplementary Estimates for the year ending 30th June, 1903. Presented 17th June, 1903, by Hon. W. S. Fielding..... *Printed for both distribution and sessional papers.*

5*a*. Supplementary Estimates for the year ending 30th June, 1904. Presented 1st October, 1903, by Hon. W. S. Fielding... *Printed for both distribution and sessional papers.*

5*b*. Further Supplementary Estimates for the year ending 30th June, 1904. Presented 14th October, 1903, by Hon. W. S. Fielding..... *Printed for both distribution and sessional papers.*

5*c*. Further Supplementary Estimates for the year ending 30th June, 1904. Presented 21st October, 1903, by Hon. W. S. Fielding..... *Printed for both distribution and sessional papers.*

6. List of Shareholders in the Chartered Banks of Canada, as on 31st December, 1902. Presented 20th April, 1903, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.

7. Report of dividends remaining unpaid, unclaimed balances and unpaid drafts and bills of exchange in Chartered Banks of Canada, for five years and upwards, prior to December 31, 1902. Presented 1st June, 1903, by Hon. W. S. Fielding ..... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 3.

8. Report of the Superintendent of Insurance, for the year ended 31st December, 1903. Presented 21st August, 1903, by Hon. W. S. Fielding.. .... *Printed for both distribution and sessional papers.*

9. Abstract of Statements of Insurance Companies in Canada, for the year ended 31st December, 1902. Presented 6th April, 1903, by Hon. W. S. Fielding.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 4.

10. Report of the Department of Trade and Commerce, for the fiscal year ended 30th June, 1902. Presented 16th March, 1903, by Sir Richard Cartwright.
Printed for both distribution and sessional papers.

10*a*. Correspondence in connection with the German tariff. Presented 16th April, 1903, by Hon. W. S. Fielding. .. . .*Printed for distribution.*

CONTENTS OF VOLUME 5.

11. Tables of the Trade and Navigation of Canada, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. W. Paterson.....*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 6.

12. Inland Revenues of Canada. Excise, etc., for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. M. E. Bernier.....*Printed for both distribution and sessional papers.*

13. Inspection of Weights, Measures, Gas and Electric Light, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. M. E. Bernier.
Printed for both distribution and sessional papers.

14. Report on Adulteration of Food, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. M. E. Bernier. ....*Printed for both distribution and sessional papers.*

15. Report of the Minister of Agriculture, for the year ended 31st October, 1902. Presented 13th March, 1903, by Hon. W. S. Fielding.....*Printed for both distribution and sessional papers.*

16. Report of the Director and Officers of the Experimental Farms, for the year 1902. Presented 28th April, 1903, by Hon. W. S. Fielding..... . .....*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 7.

17. Criminal Statistics for the year ended 30th September, 1902. Presented 12th October, 1903, by Hon. S. A Fisher..... ....*Printed for both distribution and sessional papers.*

18. Report on Canadian Archives, 1902. Presented 25th June, 1903, by Hon. S. A. Fisher.
Printed for both distribution and sessional papers.

19. Report of the Minister of Public Works, for the fiscal year ended 30th June, 1902. Presented 12th March, 1903, by Hon. J. Sutherland.....*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 8.

20. Annual Report of the Department of Railways and Canals, for the fiscal year ended 30th June, 1902, Presented 16th June, 1903, by Hon. A. G. Blair. .*Printed for both distribution and sessional papers.*

21. Report of the Department of Marine and Fisheries (Marine), for the fiscal year ended 30th June, 1902. Presented 19th March, 1903, by Hon. J. R. Préfontaine.
Printed for both distribution and sessional papers.

21*a*. Fourth Annual Report of the Geographic Board of Canada, 1902.
Printed for both distribution and sessional papers.

CONTENTS OF VOLUME 9.

21*b*. List of Shipping issued by the Department of Marine and Fisheries, being a List of Vessels on the registry books of Canada, on the 31st December, 1902. Presented 5th August, 1903, by Hon. J. R. Préfontaine..... ....*Printed for both distribution and sessional papers.*

22. Report of the Department of Marine and Fisheries (Fisheries), for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. J. R. Préfontaine.
Printed for both distribution and sessional papers.

23. Report of the Harbour Commissioners, etc., 1902....*Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 10.

24. Report of the Postmaster General, for the year ended 30th June, 1902. Presented 13th March, 1903, by Sir William Mulock ..... *Printed for both distribution and sessional papers.*

25. Annual Report of the Department of the Interior, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. C. Sifton..... *Printed for both distribution and sessional papers.*

25*a*. Irrigation in the North-West Territories of Canada. Issued by the Department of the Interior. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 11.

26. Summary Report of the Geological Survey Department for the calendar year 1902. Presented 8th October, 1903, by Sir Wilfrid Laurier .... *Printed for both distribution and sessional papers.*

27. Annual Report of the Department of Indian Affairs, for the fiscal year ended 30th June, 1902. Presented 13th March, 1903, by Hon. C. Sifton..... *Printed for both distribution and sessional papers.*

27*a*. Schedule of Indian Reserves in the Dominion. Supplement to Annual Report of the Department of Indian Affairs, 1902..... .... *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 12.

28. Report of the North-West Mounted Police, 1902. Presented 16th March, 1903, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*

29. Report of the Secretary of State of Canada, for the year ended 31st December, 1902. Presented 18th March, 1903, by Sir Wilfrid Laurier..... *Printed for both distribution and sessional papers.*

29*a*. Papers relating to a conference between the Secretary of State for the Colonies and Prime Ministers of self-governing Colonies. Colonial Conference, 1902. Presented 9th June, 1903, by Sir Wilfrid Laurier..... ... . *Printed for both distribution and sessional papers.*

29*b*. Report of the Commission to inquire into the Martineau defalcation, etc. Presented 15th June, 1903, by Hon. W. S. Fielding..... ..... *Printed for both distribution and sessional papers.*

29*c*. Statement by the Auditor General, on the Report of the Commission to inquire into the Martineau defalcation. Presented 4th August, 1903, by Hon. W. S. Fielding. *Printed for both distribution and sessional papers.*

29*d*. Correspondence with the Auditor General *re* Treasury Board regulations arising from the Martineau defalcations. Presented 25th September, 1903, by Hon. W. S. Fielding. *Printed for both distribution and sessional papers.*

30. Civil Service List of Canada, 1902. Presented 18th March, 1903, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*

31. Report of the Board of Civil Service Examiners, for the year ended 31st December, 1902. Presented 25th March, 1903, by Hon. W. S. Fielding.. .... *Printed for both distribution and sessional papers.*

32. Annual Report of the Department of Public Printing and Stationery, for the year ended 30th June, 1902. Presented 8th April, 1903, by Sir Wilfrid Laurier. *Printed for both distribution and sessional papers.*

33. Report of the Joint Librarians of Parliament for the year 1902. Presented 12th March, 1903, by the Hon. The Speaker..... ..... *Printed for sessional papers.*

CONTENTS OF VOLUME 13.

34. Report of the Minister of Justice as to Penitentiaries of Canada, for the year ended 30th June, 1902, Presented 13th March, 1903, by Hon. C. Fitzpatrick. *Printed for both distribution and sessional papers.*

35. Report of the Department of Militia and Defence of Canada, for the year ended 31st December, 1902. Presented 23rd March, 1903, by Sir Frederick Borden. *Printed for both distribution and sessional papers.*

35*a*. Further Supplementary Report of the Department of Militia and Defence:—Organization, equipment, despatch and service of the Canadian Contingents during the war in South Africa, 1899-1902. *Printed for both distribution and sessional papers.*

CONTENTS OF VOLUME 13—*Continued.*

36. Report of the Department of Labour, for the year ended 30th June, 1902. Presented 17th March, 1903, by Sir William Mulock.. ..... *Printed for both distribution and sessional papers.*

36a. Report of the Royal Commission on Industrial Disputes in the province of British Columbia Presented 24th August, 1903, by Sir William Mulock.
Printed for both distribution and sessional papers.

37. Statement of Governor General's Warrants issued since the last session of parliament, on account of the fiscal year 1902-1903. Presented 13th March, 1903, by Hon. W. S. Fielding.. .....*Not printed.*

38. Statement in pursuance of section 17 of the Civil Service Insurance Act, for the fiscal year ending 30th June, 1902. Presented 16th March, 1903, by Hon. W. S. Fielding..... *Not printed.*

39. Statement of all superannuations and retiring allowances in the civil service during the year ended 31st December, 1902, showing name, rank, salary, service, allowance and cause of retirement of each person superannuated or retired, also whether vacancy filled by promotion or by new appointment, and salary of any new appointee. Presented 16th March, 1903, by Hon. W. S. Fielding.
Not printed.

40. Statement of receipts and expenditures of the Ottawa Improvement Commission, for the fiscal year ended 30th June, 1902. Presented 16th March, 1903, by Hon. W. S. Fielding.....*Not printed.*

41. Return showing the expenditure on account of unforeseen expenses from the 1st July, 1902, to the 12th March, 1903. Presented 16th March, 1903, by Hon. W. S. Fielding..... .....*Not printed.*

42. Return of over-rulings by the treasury board of the auditor general's decisions between the commencement of the session of 1902 and that of 1903. Presented 16th March, 1903, by Hon. W. S. Fielding.. ... .*Not printed.*

43. Statement of the affairs of the British Canadian Loan and Investment Company, as on the 31st December, 1902. Presented 17th March, 1903, by the Hon. The Speaker.....*Not printed.*

44. Ordinances of the Yukon for 1902. Presented 18th March, 1903, by Sir Wilfrid Laurier.
Not printed.

45. Return of orders in council which have been published in the *Canada Gazette* between 1st January and 31st December, 1902, in accordance with the provisions of section 52 of the North-west Irrigation Act, chapter 35 of 61 Victoria. Presented 20th March, 1903, by Sir William Mulock.
Not printed.

46. Return of orders in council which have been published in the *Canada Gazette* between 1st January and 31st December, 1902, in accordance with the provisions of clause 91 of the Dominion Lands Act, chapter 54 of the Revised Statutes of Canada and its amendments. Presented 20th March, 1903, by Sir William Mulock..... ....*Not printed.*

47. Return of orders in council which have been published in the *Canada Gazette* and in the *British Columbia Gazette*, between 1st January and 31st December, 1902, in accordance with the provisions of subsection (*d.*) of section 38 of the regulations for the survey, administration, disposal and management of Dominion lands within the 40-mile railway belt in the province of British Columbia. Presented 20th March, 1903, by Sir William Mulock..... .....*Not printed.*

48. Return (in so far as the Department of the Interior is concerned) of copies of all orders in council, plans, papers and correspondence which are required to be presented to the House of Commons, under a resolution passed on 20th February, 1882, since the date of the last return under such resolution. Presented 20th March, 1903, by Sir William Mulock..... *Not printed.*

49. Return to an order of the House of Commons, dated 23rd March, 1903, showing the total cost of taking of the Census for 1871, 1881, and 1891. Also the amount paid on account of the taking of the Census for 1901, up to 1st March, 1903. Also a statement showing the nature of the information given in the Census of 1891 and of 1901, and the mode of remuneration of the enumerators on each occasion. Presented 27th March, 1903.—*Mr. Sproule*..... .....*Not printed.*

50. Return to an address of the House of Commons, dated 16th March, 1903, for copies of all correspondence exchanged since last session between the Canadian government and the British authorities on the subject of the embargo on Canadian cattle. Presented 27th March, 1903.—*Mr. Monet.*
Printed for both distribution and sessional papers.

51. Return to an address of the House of Commons, dated 16th March, 1903, for copies of all petitions, orders in council, correspondence, documents and papers in connection with the conviction and imprisonment of one Arthur Brunet, of the city of Montreal, convicted of offences against the Dominion Elections Act, 1900; and the pardon, reprieve, or release of the said Arthur Brunet from jail. Presented 1st April, 1903.—*Mr. Casgrain*..... ....*Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

51*a*. Supplementary return to No. 51. Presented 14th April, 1903 ..... *Not printed.*

52. Return to an address of the House of Commons, dated 16th March, 1903, for copies of all contracts, agreements, deeds, correspondence, documents and papers in connection with the establishment in the city of Quebec of a factory for the manufacture of rifles, by Sir Charles Ross, or by Sir Charles Ross and others. Presented 1st April, 1903.—*Mr. Casgrain*..... *Not printed.*

53. Return showing remissions of interest made under section 141, as added to the Indian Act by section 8, chapter 35, 58-59 Victoria, for the year ended 30th June, 1902. Presented 7th April, 1903, by Sir William Mulock ..... *Not printed.*

54. Papers in connection with the representation of the province of New Brunswick in the House of Commons, as follows:—1. Minute of executive council of New Brunswick, 18th March, 1903. 2. Letter to Sir Wilfrid Laurier from sub-committee of the executive council of New Brunswick, supplementing minute of council on above subject. 3. Report of privy council, 6th April, 1903. Presented 8th April, 1903, by Hon. C. Fitzpatrick..... *Not printed.*

55. Return of all lands sold by the Canadian Pacific Railway Company, from the 1st October, 1901, to the 1st October, 1902. Presented 8th April, 1903, by Sir William Mulock..... *Not printed.*

56. Return to an order of the House of Commons, dated 23rd March, 1903, for a statement giving:—1. The names of all immigration agents employed by the government in foreign countries. 2. The names of the countries wherein each of such agents does his work. 3. The place of residence of each one of such agents. 4. The salary paid to each one of them. 5. The travelling expenses paid to each one of them. 6. The office expenses and other expenses made or incurred by each one of such agents during the last year of his employment. Presented 8th April, 1903.—*Mr. Bourassa.*
Not printed

57. Return to an order of the House of Commons, dated 30th March, 1903, for a statement of all moneys paid by the government, or in its behalf, to any newspapers in the Yukon district, since the 30th of June last; stating the names of the newspapers. Presented 8th April, 1903.—*Mr. Monk* and *Sir Charles Hibbert Tupper* ..... *Not printed.*

58. Return to an order of the House of Commons, dated 16th March, 1903, for copies of all documents, letters, correspondence and papers in connection with the establishment in London of a law library for the use of counsel retained in cases before the judicial committee of the privy council. Presented 8th April, 1903.—*Mr. Casgrain*..... *Not printed.*

59. Annual return under chapter 131 R.S.C., intituled: "An Act respecting Trade Unions." Presented 15th April, 1903, by Sir Wilfrid Laurier..... *Not printed.*

60. Return of the names and salaries of all persons appointed to or promoted in the several departments of the civil service, during the calendar year 1902. Presented 15th April, 1903, by Sir Wilfrid Laurier..... *Not printed.*

61. Detailed statement of all bonds and securities registered in the department of the secretary of state of Canada, since last return, 19th February, 1902, submitted to the parliament of Canada under section 23, chapter 19 of the Revised Statutes of Canada. Presented 15th April, 1903, by Sir Wilfrid Laurier..... *Not printed.*

62. Royal Commission *re* the Tobacco Trade of Canada. Report of the Commissioner. Presented 16th April, 1903, by Hon. H. G. Carroll ..... *Printed for both distribution and sessional papers.*

63. Return to an address of the House of Commons, dated 23rd March, 1903, for copies of all correspondence, orders in council, or applications, relating to or concerning the grant or concession to A. N. C. Treadgold, or to the Hydraulic Mining Syndicate, either separately or associated with A. N. C. Treadgold, of claims, rights or privileges, on Bonanza, Bear, and Hunker Creeks, or their tributaries, or elsewhere in the Yukon. Presented 16th April, 1903.—*Mr. Bell.*
Printed for both distribution and sessional papers.

63*a*. Copy of instructions to the commissioner to conduct a public inquiry in relation to the grant or concession in the Yukon territory to A. N. C. Treadgold or others. Presented 8th June, 1903, by Sir Wilfrid Laurier..... *Not printed.*

64. Return to an order of the House of Commons, dated 6th April, 1903, showing: 1. The quantity of vegetables entered at the custom-house at Montreal, as imported from the United States, from the first of February, 1902, to the first of March, 1903. 2. The quantity of vegetables entered at the custom-house at Toronto, as imported from the United States, from the first of February, 1902, to the first of March, 1903. 3. The amount of duty levied and collected in each case respectively, Presented 20th April, 1903.—*Mr. Borden* (*Halifax*). ..... *Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

65. Joint report of the survey and remonumenting of the Quebec-New York International Boundary—W. F. King, Chief Astronomer (Canada): Edward A. Bond, State Engineer and Surveyor, New York (U.S.). Presented 20th April, 1903, by Sir William Mulock.....*Printed for sessional papers.*

66. Return to an address of the Senate, dated 19th March, 1903, for copies of all orders in council disallowing acts passed by the different legislatures from the date of the last return made to parliament, together with copies of the reports to council of ministers of justice giving the reasons for such disallowance. Presented (Senate) 17th April, 1903.—*Hon. Sir Mackenzie Bowell*..... *Not printed.*

67. Return to an address of the Senate, dated 20th March, 1903, for copies of all correspondence between the government of the Dominion and the governments of the different provinces, and of the territorial government of the North-west Territory, relating to the disallowance of any act passed by such governments from the date of the last return made to parliament. Presented (Senate) 17th April, 1903.—*Hon. Sir Mackenzie Bowell*.....*Not printed.*

68. Return to an address of the House of Commons, dated 30th March, 1903, for copies of the correspondence exchanged between the government and the different provincial legislatures on the subject of the increase of the subsidies paid to the provinces in virtue of the British North America Act. Presented 27th April, 1903.—*Mr. Lemieux*.....*Printed for sessional papers.*

69. Return to an order of the House of Commons, dated 23rd March, 1903, for copies of all correspondence between the government, or any member of the government, and W. W. Fitzgerald, of Grenfell, Assa., or any one in his behalf, regarding his homestead and pre-emption, which were cancelled. Presented 27th April, 1903.—*Mr. Sproule*.....*Not printed.*

70. Return to an order of the House of Commons, dated 23rd March, 1903, for copies of all correspondence, letters, documents, etc., relating to the difficulties in regard to the Indian reserve of Doncaster, in the county of Terrebonne. Presented 27th April, 1903.—*Mr. Desjardins*..... *Not printed.*

71. Return to an order of the House of Commons, dated 23rd March, 1903, for copies of all correspondence, letters and documents relating to the request made to the federal government in connection with the building of a post office in the town of Terrebonne, county of Terrebonne. Presented 27th April, 1903.—*Mr. Desjardins*.....*Not printed.*

72. Return to an order of the House of Commons, dated 30th March, 1903, for a statement showing in detail amounts of money paid to newspapers, newspaper companies, newspaper owners, or agents of publicity, in the United Kingdom, France, or the United States, since the 30th of June last. Presented 28th April, 1903.—*Mr. Monk*.....*Not printed.*

72*a*. Supplementary return to No. 72. Presented 15th May, 1903.....*Not printed.*

73. Return to an order of the House of Commons, dated 30th March, 1903, for a statement showing: 1. The total amount paid to date by the government to the Grand Trunk Railway Company, for a lease of line from Ste. Rosalie to Montreal. 2. Total amount paid to date by the same to the same, for crossing facilities over the Victoria bridge. 3. Total amount paid from the same to the same, as the government's share of improved terminal facilities at Bonaventure depot. Presented 28th April, 1903.—*Mr. Monk*..... *Not printed.*

74. Return to an order of the House of Commons, dated 9th April, 1902, showing: 1. The number of cattle, sheep and horses killed by engines on all Canadian railways during each year since 1890; *(a.)* at points of intersection of highways; *(b.)* elsewhere on the lines. 2. How many engines and cars, if any, were derailed or disabled on all Canadian railways during each year since 1890, owing to their striking cattle, sheep and horses; *(a.)* at points of intersection of highways; *(b.)* elsewhere on the lines. 3. How many railway employees and passengers, if any, were killed or injured on all Canadian railways during each year since 1890, on account of engines striking cattle, sheep and horses; *(a.)* at points of intersection of highways; *(b.)* elsewhere on the lines. 4. What is the total estimated value of the cattle, sheep and horses killed on all Canadian railways, during each year since 1890; owing to their being struck by engines. 5. What is the total estimated damage to rolling stock and other railway property on all Canadian railways during each year since 1890, caused by collisions with cattle, sheep and horses. 6. How many trains have been derailed or partly derailed on all Canadian railways during each year since 1890, owing to the action of frost on the road-bed at points where the old pit cattle-guards were in existence. Presented 28th April, 1903.—*Mr. Erb.*
Printed for sessional papers.

CONTENTS OF VOLUME 13—*Continued.*

75. Return to an address of the House of Commons, dated 30th March, 1903, for copies of all plans and specifications submitted for approval by the Montreal Subway Company; copies of the order in council, if any, approving of such plans. Also of any report of the progress of the work; statement showing the amount of money spent on the undertaking; the amount of the deposit made by the company; and all papers or correspondence relating to the enterprise. Presented 28th April, 1903. —*Mr. Tarte* ..... *Not printed.*

76. Return to an address of the House of Commons, dated 6th April, 1903, of all papers, documents and correspondence between the department of railways and canals, the department of justice, the treasury board and the auditor general, or between any of them, relating to the promotion of Mr. F. A. Dixon to the rank of chief clerk, at a salary of $1,800 a year; to take effect from July 1, 1902, and the payment of said salary; and including amongst other papers the report of the deputy head of the department of railways and canals, as provided for by subsection (A) of section 15 of the Civil Service Act; the minute or memorandum of concurrence of the minister of railways in said report; and a copy of the order in council creating such chief clerkship; pursuant to section 15 of said Act, and of the order in council in this matter of May 20th, 1902; and including all papers, documents, letters and proceedings in this matter, referred to on pages A—49, 50, 51, 52, 53, 54 and 55 of the Auditor General's Report for the year ending June, 1902. Presented 28th April, 1903.—*Mr. Lennox*..... *Not printed.*

77. Return to an order of the House of Commons, dated 6th April, 1903, for copies of all telegrams, reports, letters, photographs, and correspondence, of every description, between the department of agriculture, and any person, or persons, whatsoever, relevant to the outbreak of hog cholera in the township of Yarmouth, Ontario. Presented 28th April, 1903.—*Mr. Ingram*..... *Not printed.*

78. Return to an address of the House of Commons, dated 30th March, 1903, for copies of all orders in council, correspondence, despatches and documents, relating to the disallowance by the governor in council of statutes of the province of British Columbia, during the past five years. Presented 30th April, 1903.—*Mr. Borden (Halifax)*..... *Printed for both distribution and sessional papers.*

78*a*. Supplementary return to No. 78. Presented 7th May, 1903.
Printed for both distribution and sessional papers.

79. Return to an address of the House of Commons, dated 2nd April, 1903, for copies of all judgments or opinions delivered by the supreme court of Manitoba, touching the alleged rights of exemption from taxation, claimed by the Canadian Pacific Railway Company, in respect of the land of the said company, in the North-west Territories, or in Manitoba. Presented 30th April, 1903.—*Mr. Borden (Halifax)*..... *Printed for sessional papers.*

80. Return to an order of the House of Commons, dated 2nd April, 1903, showing all correspondence between the inland revenue department and manufacturers of automatic grain-weighers, used on threshing machines, in Manitoba and the North-west Territories. Between the inland revenue department and inventors of automatic grain-weighers for threshing machines. Between the inland revenue department and thresher men using automatic grain-weighers, in Manitoba and the North-west Territories. Also a copy of report of chief inspector and scale architect *re* the Standard Grain-weigher, manufactured by the Globe Manufacturing Company of Winnipeg. Presented 30th April, 1903.—*Mr. Stewart*..... *Not printed.*

81. Return to an order of the House of Commons, dated 15th April, 1903, for copies of lease made between the Superintendent General of Indian Affairs and S. G. Holbrook and Adam S. Benn for the south half of lot number twelve, concession two, township of Tuscarora, county of Brant, also of lease made by said superintendent general to one Gibson for south half of lot number five, in said township, for better identification, both said half lots belonging to or for the benefit of Indian locatee, Robert S. Sawyer; also of lease or agreement for or in reference to one of said half lots made (previous to said leases to Holbrook and Benn and Gibson) by said superintendent general, or the late Indian agent, Captain Hugh Stewart, to or with one R. Brant; also of all indorsements made on the said leases, or any of them; also of all other agreements or writings made by or between said superintendent general, or Indian agent Daniel J. Lynch, and said Holbrook and Benn in reference to the said lease to them; also of all receipts or acknowledgments made to the department having charge of Indian affairs, or the said Lynch, of or for rent or other payments made by the said Holbrook and Benn, or either of them, under or in connection with the said lease to them, or having reference to or in connection with the lands mentioned therein; also of all letters or correspondence

CONTENTS OF VOLUME 13—*Continued.*

between the said department or Indian agent, the late Captain Hugh Stewart and Daniel J. Lynch, and the said Holbrook and Benn, Gibson and Brant, or either or any of them, or from or to either or any of them to the other of them, in reference to or in connection with any or either of the matters or things above mentioned, or in reference to or in connection with a certain order for ten dollars, dated the third of April, nineteen hundred and one, made by said Sawyer on Hugh Stewart, late Indian agent, in favour of said Holbrook; also copies of all letters or correspondence between said department and said Indian agent, Daniel J. Lynch, or by or from either and each to the other, in connection with or in reference to any or either of the said matters or things; also statement in detail showing all moneys received by the said department from said Indian agent, Daniel J. Lynch, for or on account of any of the said matters and things aforesaid, with dates, items and amounts, and for which, and what; and also to or for what, and for and by whom, such money was paid out or applied; also of any petitions, or writings in the nature of petitions, in reference to Indian agent Daniel J. Lynch, and the names of those signing the same; also of all other documents, papers and writings in connection with or in reference to all or any or either of the matters aforesaid. Presented 5th May, 1903. *Mr. Tisdale*..... *Not printed.*

82. Return to an order of the House of Commons, dated 6th April, 1903, for a statement in detail of amounts paid for travelling expenses, in connection with the Census of 1891, to any census commissioner, in the province of Quebec, since 30th June, 1902; with names of officers to whom such travelling expenses were paid; and the places such officer travelled to Presented 5th May, 1903.—*Mr. Borden (Halifax)*..... *Not printed.*

83. Return to an address of the House of Commons, dated 15th April, 1903, for copy of the contract entered into between the government and the Canadian Construction Company, for enlargement and improvement of the Farran's Point canal, and the profiles, plans, drawings, and specifications in connection therewith; all accounts and claims by the said contractors, for extras or damages under or in connection with this contract; and particularly claims Nos. 8*b*, 9 and 10, made by the contractors. Copy of the order in council of February 5th, 1900, authorizing the payment of $70,309.74 to the Construction Company. And a return of all papers, documents, letters, memoranda, orders in council, and rulings of the honourable the treasury board, in reference to the items 8*b*, lock foundation on rock, $9,588.50; 9, extra unwatering of prism, $7,534.28, as referred to on pages A—24 to A—36, inclusive, of the Auditor General's Report for the year ending 30th June, 1902. Presented 6th May, 1903.—*Mr. Lennox* ..... *Not printed.*

84. Partial return to an order of the House of Commons, dated 16th March, 1903, for copy of the full and each partial report of Half-breed Commissioners for each of their sittings since the first of January, 1900. Also a list of all applications made for scrip, names and residence of applicants whose applications have been received; and class of scrip issued in each case. Also list of all applications made for scrip, names and residence of applicants whose applications were not accepted; and the reason or reasons for refusing the same. Presented 7th May, 1903.—*Mr. LaRivière* ...*Not printed.*

84*a*. Supplementary return to No. 84. Presented 29th June, 1903.

85. Return to an address of the House of Commons, dated 25th March, 1903, for copies of all correspondence received by the government, and of all answers made thereto, concerning the South Eastern Valley Railway, and the United Counties Railway. Also copies of all reports that may have been made regarding the actual condition of such railways. Presented 12th May, 1903.—*Mr. Tarte.* *Not printed.*

86. Return to an order of the House of Commons, dated 4th May, 1903, for copies of all engineers' reports, specifications, estimates and correspondence in reference to surveys made between Rice Lake and Lake Ontario, in connection with the Trent Valley Canal. Presented 12th May, 1903.—*Mr. Ward*..... *Not printed.*

87. Return to an order of the House of Commons, dated 4th May, 1903, showing the rates over the Intercolonial Railway for live stock, coal, lumber, and for freight under classes 1—10, between Stellarton and West River; and between Stellarton and Antigonish, and between Stellarton and Pictou Landing, at present in force. Also showing rates for same classes between same points in 1897. Presented 12th May, 1903.—*Mr. Bell*..... *Not printed.*

88. Return to an order of the House of Commons, dated 4th May, 1903, for a copy of the correspondence, reports, and any other documents, in the department of public works, in respect to the claim of Amable Paradis, of Whitford, Alberta, for the services of a ferry boat and transportation upon the same. Presented 12th May, 1903.—*Mr. LaRivière.* ..... *Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

89. Correspondence in continuation of correspondence already brought down respecting agreement between Australia and the Eastern Extension Company with reference to the Pacific cable. Presented 13th May, 1903, by Sir Wilfrid Laurier..... *Printed for both distribution and sessional papers.*

90. Return to an address of the House of Commons, dated 16th March, 1903, for copies of all papers, documents, letters, correspondence, etc., in relation to the proceedings for the extradition of one John Francis Gaynor, and one Benjamin D. Greene. Presented 13th May, 1903.—*Mr. Casgrain. Not printed.*

91. Return to an order of the House of Commons, dated 2nd April, 1903, for a record of all goods of whatsoever kind entered by the Intercolonial Railway duty free, for use of said railway. Presented 26th May, 1903.—*Mr. Borden (Halifax)*.....*Not printed.*

92. Return to an address of the House of Commons, dated 30th March, 1903, for copies of all correspondence, orders in council, and other papers, in connection with the prosecution by the custom department, for the scuttling of the schooner *Euxine*, of Margaree Island, while reported on a smuggling expedition, from St. Pierre, Miquelon. Presented 26th May, 1903.—*Mr. McLennan*...*Not printed.*

93. Return to an address of the House of Commons for a copy of the Report of the Committee of the Honourable the Privy Council, approved by the Governor General on the 19th May, 1903, covering the appointment of a Commission, composed of Sir William Van Horne, John Bertram and Harold Kennedy, to report on questions affecting the transportation of Canadian products to the markets of the world through and by Canadian ports, etc. Presented 27th May, 1903. *Mr. Sutherland (Oxford)*.....*Printed for both distribution and sessional papers.*

94. Return to an order of the House of Commons, dated 25th February, 1901, of the following data, correspondence, letters and reports, between General Hutton and Lieutenant-Colonel Sam. Hughes; or concerning the action of the latter in volunteering men for service of the British Empire in connection with the South African struggle. 1. Address, official, Major General Hutton to the District Officers Commanding and Commanding Officers of Regiments, at his first inspection, 1898. 2. Letter, Major General Hutton to Lieutenant-Colonel S. Hughes asking for criticism of and suggestion *re* same. 3. Official reply of Lieutenant-Colonel S. Hughes. 4. Letters, Lieutenant-Colonel Hughes to General Hutton, *by request, re*:—*(a.)* Canadians in wars of 1812, 1837, 1866, 1870 and 1885, and offering to raise a corps for Imperial service. *(b.)* Copies of former applications to Imperial and Canadian authorities for Colonial assistance in Imperial wars, and renewed offer of service. *(c.)* Plans for Colonial Brigade in Imperial wars; and renewal of offer to raise a corps. 5. Requests, General Hutton to Colonel Hughes, to state his qualifications and record as soldier, and to show why a Permanent Corps officer should not be preferred. 6. Circular letter, General Hutton to Honourable Colonel Gibson and Council of the Dominion of Canada Rifle Association. 7. Reply of Honourable Colonel Gibson to General Hutton. 8. Reply of Council of D.R.A. 9. The plan originally proposed by General Hutton of Annual Camps, making 3 and 4 Military Districts drill in September, while 1, 2, 5 and 6 should drill in June, annually. 10. Report or communication of General Hutton to the Canadian press just prior to the opening of the Session of Parliament, 1899, that no Member of Parliament would be allowed to speak on military questions in the House of Commons, if he were also a militia officer, without permission of General Hutton. 11. Reports, or data, on same subject to the Minister of Militia and Defence. 12. The proposals of General Hutton to amend the law, or regulations and orders, so as to prevent militia officers retaining commission if or while a Member of Parliament. 13. Report by request, Colonel Hughes to General Hutton *re* staff ride. 14. The authority under the law which makes the application of Colonel Hughes, 24th July, 1899, to Honourable Dr. Borden, Minister of Militia, an *irregularity and breach of military discipline*, vide General Hutton to Minister of Militia, 31st July, 1899. 15. Application, Colonel Hughes to General Hutton (through D.O.C.), to raise a corps for Imperial service in the Transvaal, July 24th, 1899. 16. Reports to General Hutton of two militia officers of the city of Toronto and others, stating that few, if any, men or officers could be obtained in Canada for such a service. 17 *(a.)* Application, Col. Hughes to Honourable Dr. Borden, Minister of Militia, July 24, to raise a corps for service in the Transvaal. *(b.)* Reply of the Minister of Militia thereto. *(c.)* Report and papers connected with the application before the Privy Council of Canada. *(d.)* General Hutton's reprimand to Colonel Hughes for applying to the Minister of Militia. *(e.)* General Hutton's letter, July 31st, 1899, to Minister of Militia *re* same. *(f.)* The authority upon which Colonel Foster, C.S.O., based the statement in his letter of September 19th, 1899, to Colonel Hughes, "*after which you withdrew it.*" 18 *(a.)* Application of Colonel Hughes to Right Honourable Joseph Chamberlain to raise a corps in Canada for service in

CONTENTS OF VOLUME 13—*Continued.*

Transvaal. *(b.)* An acknowledgment by Mr. Chamberlain. *(c.)* Letters, Military Secretary to His Excellency to General Hutton *re* same. *(d.)* General Hutton (C.S.O.) to Colonel Hughes, August 24, 1899, reprimanding him for having written to Mr. Chamberlain *re* the raising of a corps. *(e.)* Colonel Hughes to General Hutton (C.S.O.), September 2, 1899, in reply. *(f.)* Colonel Foster, C.S.O. to General Hutton, to Colonel Hughes, September 19th, asking him to withdraw the letter of September 2nd, 1899. *(g.)* Complete letter—not an extract—from Colonel Hughes to Colonel Foster, C.S.O. to General Hutton, September 22nd, 1899, in refusal to withdraw the letter of September 2nd. *(h.)* Colonel Foster, C.S.O. to General Hutton, to Colonel Montizambert, D.O.E., Mil. Dis. 3 and 4, October 9th, *re* Hughes' letter of September 2nd *re* having it withdrawn. *(i.)* Letter, Colonel Montizambert, forwarding same to Colonel Hughes and urging withdrawal. *(j.)* Letter, Colonel Hughes to Colonel Montizambert refusing to withdraw the letter, and giving reasons therefor. *(k.)* Letter, Colonel Montizambert to Colonel Foster, C.S.O. to General Hutton, *re* the same. *(a.)* Letter, Colonel Hughes to the press of Canada, *re* troops from Canada for service in the Transvaal, dated September, 1899, referred to in the letter—Colonel Foster, C.S.O. to General Hutton, to Colonel Hughes, September 25th, 1899. *(b.)* Telegram, General Hutton (C.S.O.) to Colonel Hughes, September 25th, 1899, *re* above letter and Section 98, Army Act. *(c.)* Letter, General Hutton (C.S.O.) to Colonel Hughes, *re* same. *(d.)* The evidence upon which General Hutton sent the telegram and the letter of September 25th, 1899. *(e.)* The authority under the law empowering General Hutton to send such letter and telegram. *(f.)* Despatch dictated by General Hutton and published in the London (England) *Times*, stating that in his letter to the Canadian press, Colonel Hughes was *usurping the functions of the Government* of Canada, September 25th, 1899. *(g.)* Despatch, General Hutton to the Canadian press, *re* the same, September 25th, 1899. *(h.)* Despatch, General Hutton to Canadian press, September 28th, 1899, *re* Colonel Hughes being liable to fine or imprisonment under Section 98. *(i.)* Colonel Hughes' telegram in reply to General Hutton (C.S.O.), September 25th, 1899. *(j.)* Letter, Colonel Hughes (September 30th) to General Hutton's (C.S.O.) letter of September 25th, *re* Section 98.—Official. *(k.)* General Hutton's letter to Colonel Foster, October 11th, 1899 *re* Colonel Hughes' letter of September 30th, 1899. *(l.)* Letter, Colonel Foster, C.S.O. to General Hutton, to Colonel Montizambert, October 16th, 1899, threatening to suspend Colonel Hughes from the command of his battalion for writing the letter of September 30th, 1899. *(m.)* The authority under the law, permitting General Hutton to make such threats. *(n.)* Letter, Colonel Montizambert (October 17th, 1899) to Colonel Hughes *re* above. 20. *(a.)* Letter, Colonel Hughes to General Hutton, October 10th, *re* the press reports against Colonel Hughes, dictated by General Hutton. *(b.)* General Hutton (C.S.O.) to Colonel Hughes and to Minister of Militia (October 25th and 26th respectively) *re* above. 21 *(a.)* Colonel Hughes to General Hutton, August 18th, 1899, by request *re* qualification. *(b.)* Reply of General Hutton, August 26th, 1899. *(c.)* Letter, Colonel Hughes to General Hutton, August 28th 1899, in reply to above and to the words of General Hutton: "*You*" Canadians "*might as well try to fly to the moon as to take the field alongside British regulars, short of three years' training, and not then unless led by Imperial officers.*" 22. Letter, Colonel Hughes withdrawing controversial matter on his receiving notification of his appointment to the Transvaal force. 23. Letter, Colonel Hughes to General Hutton, October 23rd, 1899, in friendly parting. 24. Letter, Colonel Hughes to the Right Honourable Sir Wilfrid Laurier, on General Hutton's declining to accept proffered friendliness—demanding that general's recall, October 27th or 28th, 1899. 25. Report of the speech delivered by General Hutton to the officers of the Canadian Contingent in the Chateau Frontenac, Sunday, 29th October, 1899, against Colonel Hughes. 26. Letters of General Hutton to South African British Generals, against Colonel Hughes. 27. Copies of the reports furnished to the press of Canada, Great Britain, the United States and South Africa, against Colonel Hughes by General Hutton's agency, during November and December, 1899 and January and February, 1900. 28. The legal authority for General Hutton to write officially to South African Generals, without the sanction of the Minister of Militia, against Colonel Hughes. 29. Letter of Colonel Hughes from Upington in Gordonia, South Africa, about 30th March, 1900, to Honourable Dr. Borden, Minister of Militia, Canada, correcting errors, omissions, and misstatements in General Hutton's brief as submitted to Parliament last session. 30. The authority under the law permitting General Hutton and Colonel Foster to use personal, unofficial, confidential and private correspondence in official returns. 31. The authority under the law permitting the G.O.C., General Hutton, to receive official correspondence from His Excellency the Governor General, through the Military Secretary. 32. A copy of the "notification to Lieutenant-Colonel Hughes that they, private letters, would be so submitted" by General Hutton, referred to in the letter of

CONTENTS OF VOLUME 13—*Continued.*

Lieutenant-Colonel Pinault, March 16th, 1900. 33. The authority under the law forbidding a Canadian who chances to be a militia officer, not of the Permanent Corps, from volunteering to Great Britain to serve in South Africa. 34. The authority under the law authorizing General Hutton, as G. O. C., to reprimand a Canadian militia officer, not on duty, from volunteering to the Minister of Militia of Canada, to raise a corps for the service of Great Britain. 35. The legal authority for General Hutton, through Colonel Foster, *vide* letter of September 19th to Colonel Hughes, to use the language :—"but as officer commanding a Battalion it would, I am sure, be quite impossible for any general to overlook the character of your letter (September 2nd), which from a military point of view, could only be considered as inconsistent with discipline." 36 The legal authority of Major General Hutton for stating (October 9, 1899), "No officer has the right to dispute the authority of the Major General Commanding as his superior officer, or to question his action ; still less that of the Governor General, the representative of Her Majesty in Canada." 37. Reports or recommendations of General Hutton producing changes in the command of the R.C.R.I. in 1899. 38. Report of Colonel Herkimer showing that General Hutton declined to treat as official or public, a telegram and a letter written in his capacity as Major General to Colonel Herkimer, the General claiming he had the right to regard them not as official, but private, and that they were not binding on him. 39. The "authority" referred to in the letter of Colonel Hughes to General Hutton (vide D.O.C.,) September 2, 1900, in paragraphs *(a.)* to *(g.)* 40. The following letters and data : *(a.)* General Hutton to Minister of Militia, October, 26, 1899. *(b.)* Colonel Hughes to General Hutton, October 27, 1899. *(c.)* General Hutton (C.S.O.) to Colonel Hughes, October, 28, 1899. *(d.)* General Hutton (C.S.O.) to Colonel Otter *re* Lieutenant-Colonel Hughes going to South Africa, &c., October, 1899, and October, 29, 1899, and October 30, 1899. *(e.)* General Hutton to the Deputy Minister of Militia, November, 14, 1899. *(f.)* Telegram January 31, 1900, C.S.O., to Colonel Sam. Hughes, Cape Town, *re* Strathcona Horse. *(g.)* General Hutton to Minister of Militia, February 2, 1900. Presented 28th May, 1903.—*Mr. Hughes (Victoria)*.....*Not Printed*.

95. Return to an order of the House of Commons, dated 18th May, 1903, for copies of all papers, letters, telegrams or other documents, relating to the purchase of land for a drill shed in the town of Woodstock, N.B. And also copies of all papers, letters, telegrams or other documents, relating to the construction of a drill shed on said land. Presented 28th May, 1903.—*Mr. Sproule*.....*Not printed.*

95*a*. Supplementary return to No. 95. Presented 2nd July, 1903.....*Not printed*.

96. Return to an order of the House of Commons, dated 29th May, 1903, for a copy of the Report of the Commissioners appointed to investigate an accident upon the Intercolonial Railway, near Windsor Junction, at 23 o'clock on 11th April, 1903. Presented 29th May, 1903.—*Mr. Clarke*....*Not printed.*

97. Return to an order of the House of Commons, dated 18th May, 1903, for a statement setting forth : 1. The quantity of refined sugar imported into Canada from 1st January to 31st December, 1902. 2. The quantity of raw sugar imported during the same period, and giving the name of the country whence such sugar was imported. Presented 1st June, 1903.—*Mr. Marcil (Bonaventure)*.
Not printed.

98. Correspondence *re* winter steamers. Presented (Senate) 1st June, 1903, by Hon. R. W. Scott.
Not printed.

99. Return to an address of the Senate, dated 13th May, 1902, for a statement showing : 1. The names of all the persons who have been appointed, or who have been recommended for the position of honorary colonels or honorary lieutenant-colonels in the volunteer force, designating the regiments to which they are or are to be attached, and mentioning the date of each nomination. 2. A statement of the service of each of the persons so appointed or recommended. 3. The names of all persons who have recommended such nominations, together with all the correspondence exchanged on this subject. 4. The names of the persons recommended who have not been appointed, distinguishing persons whose appointment has been refused from persons whose appointment has not yet been decided upon, and giving for each of these persons the cause of the refusal of or the delay in his appointment. Presented (Senate) 28th May, 1903.—*Hon. Mr. Landry*.....*Not printed.*

100. Return to an address of the Senate, dated 30th April, 1903, for copies of all correspondence and communications between the various labour organizations, or from any one on their behalf, and the department of labour, relating to the strikes that have occurred during the past year, or relating to any threatened strikes during the past year in Canada. Presented (Senate) 28th May, 1903.—*Hon. Mr. Gibson*.....*Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

101. Return to an order of the House of Commons, dated 5th June, 1903, for a copy of the tenders received for a fast steamship service between Britain and Canada. Presented 5th June, 1903.—*Sir Richard Cartwright*.....*Not printed.*

102. Return to an order of the House of Commons, dated 1st June, 1903, for statement showing: 1. The value of fruit shipped to Europe in cold storage in each of the calendar years 1897, 1898, 1899, 1900, 1901, 1902. 2. The value of fruit shipped in cooled chambers to Europe in seasons 1901 and 1902, respectively. 3. In what further steamers were cooling plants placed in the season of 1902, if any. 4. In what further steamers were mechanical ventilating plants placed in the season of 1902, if any. 5. How much money has the government advanced to date, as bonus or subsidy to steamship companies, to induce them to put in ventilating apparatus, to enable them to carry in better condition perishable cargo, since 1896. 6. How much to induce them to put in cooling plants, since 1896. 7. How much to induce them to put in cold storage plants, since 1896. 8. Tracings of temperatures, as recorded by thermographs placed on ocean steamers by officers of the government, (*a*) in cold storage chambers; (*b*) in cooled chambers; (*c*) in ventilated chambers, if any; (*d*) in other parts of steamers, if any, naming location. Presented 9th June, 1903.—*Mr. Smith (Wentworth)*.....*Not printed.*

102*a*. Return to an address of the Senate, dated 26th and 28th August, 1903, for papers relating to the ventilation of space in steamships used for storage during transportation of perishable products, such as apples and cheese—in so far as the department of agriculture is concerned. Presented (Senate) 24th September, 1903.—*Hon. Mr. Ferguson*.....*Not printed.*

103. Return to an address of the House of Commons, dated 30th March, 1903, for copies of tenders asked for and received for Quebec harbour improvements, during the last ten months; of reports to council, correspondence, and plans prepared by the department of public works, in reference to such works. Presented 11th June, 1903.—*Mr. Tarte*.....*Not printed.*

104. Return to an address of the House of Commons, dated 30th March, 1903, for copies of all orders in council, and of all other documents and correspondence relating to the appointment of a commission instructed to secure a site for a dry dock in the port of Montreal; likewise of the instructions given regarding that subject, the reports that may have been made, etc. Presented 11th June, 1903.—*Mr. Tarte*.....*Not printed.*

105. Return to an order of the House of Commons, dated 26th March, 1903, showing the number of buildings, or portions of buildings, rented or occupied by the government for offices or other purposes, in Ottawa, outside the departmental buildings; from whom rented, terms of lease or leases, and rent being paid for each. Presented 11th June, 1903.—*Mr. Sproule*.....*Not printed.*

106. Return to an order of the House of Commons, dated 15th April, 1903, for copies of all engineers' reports, plans, specifications, estimates and correspondence in reference to surveys made on French River and Lake Nipissing. Also copies of all reports and surveys recently made on the Ottawa and Culbute Rivers. Presented 11th June, 1903.—*Mr. Murray*.....*Not printed.*

107. Return to an order of the House of Commons, dated 23rd March, 1903, for copies of all correspondence, letters, documents, specifications, plans concerning the deepening of the River Jésus, from the end of the isle to the end of the Pacific Bridge, on the said river, so as to allow the passage of vessels drawing five feet of water. Presented 11th June, 1903.—*Mr. Desjardins*.....*Not printed.*

108. Return to an address of the House of Commons, dated 30th March, 1903, for a copy of the contract made with Poupore & Malone, for the construction of a wharf at the foot of St. Mary's Current, in the port of Montreal; and of any agreements modifying the original terms of said contract. Presented 11th June, 1903.—*Mr. Monk*.....*Not printed.*

109. Return to an address of the Senate, dated 27th May, 1903, for a copy of all the correspondence exchanged between the militia department, or the government of Canada, and the government of the province of Quebec, and the council of the city of Quebec, on the subject of the improvements to be made in the military riding school at Quebec, and its projected enlargement. Presented (Senate) 9th June, 1903.—*Hon. Mr. Landry*.....*Not printed.*

110. Return to an order of the House of Commons, dated 4th May, 1903, for a list of all permanent and temporary officials of the several branches of the department of the interior; date of appointment, and their salaries, on the first day of July, 1902. Also a list of the permanent and temporary officials of the Indian branch of that department, on the first day of July, 1896. And also on the same date in 1902 with same particulars as to date of appointment and salaries. Presented 12th June, 1903.—*Mr. LaRiviere*.....*Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

111. Return to an address, dated 1st June, 1903, for a statement showing, year by year, the quantity and value of pulp wood exported from the port of Three Rivers, from 1896 up to date ; such statement to show the name of each exporter, as well as the quantity and value of the wood exported by each one, also year by year ; and in the case of exporters not having declared the quantities to the customs officer, the statement to show the value by the cord upon which the total value has been based, as declared by the exporters. Presented (Senate) 15th June, 1903.—*Hon. Mr. Landry.... Not printed.*

112. Return to an address, dated 1st May, 1903, for a copy of all documents whatsoever relating to the commutation of the sentence of death pronounced against Joseph A. Mathurin, including therein the report of the judge who presided at the trial, the permission of the judge for the production of such report having been previously obtained. Presented (Senate) 15th June, 1903.—*Hon. Mr. Landry. Not printed.*

113. Return to an order of the House of Commons, dated 19th June, 1903, for copies of certain estimates in connection with the Canadian Northern Railway, as follows : 1. Approximate estimate of cost of line from Grandview to Edmonton—62 miles. 2. Approximate estimate of cost of construction from 100 miles east of Prince Albert to Prince Albert. Presented 19th June, 1903.—*Hon. A. G. Blair. Printed for both distribution and sessional papers.*

114. Return to an order of the House of Commons, dated 23rd June, 1903, for a copy of the report of the commissioners appointed to make an investigation into the accident which happened at West Lorne Station of the Lake Erie and Detroit River Railway on April 29th last. Presented 23rd June, 1903.—*Hon. A. G. Blair..... ....Not printed.*

115. Return to an order of the House of Commons, dated 24th June, 1903, for a statement showing : 1. The number of men employed by the customs department at each port in the Dominion on the 1st day of May, 1900. 2. The number of said men who were transferred to the statistical staff at Ottawa between the 1st May and 1st September, 1900. 3. The number of men in the employ of the customs department at each of the ports of the Dominion on the 1st day of May, 1903. Presented 24th June, 1903.—*Mr. Taylor. ....Not printed.*

116. Return to an address of the House of Commons, dated 11th May, 1903, for copies of all orders in council, memorials, letters, telegrams, and other correspondence, and all other documents and communications in writing, between the 1st day of January, 1897, and the 1st day of May, 1903, relating to, or concerning, or in any way having reference to the granting of provincial autonomy to the North-west Territories ; or the creation of the said territories into a province, or provinces. Presented 26th June, 1903.—*Mr. Borden (Halifax)....Printed for both distribution and sessional papers.*

116*a*. Supplementary return to No. 116. Presented 24th July, 1903. *Printed for both distribution and sessional papers.*

116*b*. Further supplementary return to No. 116. Presented 13th October, 1903. *Printed for both distribution and sessional papers.*

117. Return to an order of the House of Commons, dated 30th March, 1903, of all sales of school lands in Manitoba and the North-west Territories since 1896, showing : 1. Date of sale. 2. Place where the sale occurred. 3. Name of auctioneer. 4. Total amount of purchase money. 5. Total amount paid at time of sale. 6. Total amount paid since time of sale. 7. Total amount still due for principal and interest, respectively. 8. Total amount of sale by each auctioneer. 9. Total amount paid to each auctioneer for his services. Presented 29th June, 1903.—*Mr. Roche (Marquette)..Not printed.*

118. Return to an order of the House of Commons, dated 11th May, 1903, for copies of petitions, engineers' reports, estimates and correspondence, in reference to the building of a pier at or near Carlton Point, Prince county, Prince Edward Island, in connection with promoting the efficiency of winter communication between Prince Edward Island and the mainland. Presented 2nd July, 1903. —*Mr. Lefurgey..... .....Not printed.*

119. Return to an order of the House of Commons, dated 11th May, 1903, for copies of all reports, correspondence, petitions and papers, filed in the department of public works, or other department, in the matter of the lowering or regulating of the water of Lakes Simcoe and Couchiching ; and the relieving of lands in the townships of Mara, Rama and Morrison, from floods occasioned by the overflow of said lakes. Presented 2nd July, 1903.—*Mr. Grant. .... .Not printed.*

20. Return to an order of the House of Commons, dated 30th March, 1903, for copies of all papers, letters, telegrams, contracts, specifications, and correspondence of every description whatever, between the minister of public works, or any other member of the government, and the contractors,

CONTENTS OF VOLUME 13—*Continued.*

sub-contractors, and other parties, in connection with the repairs to the post office, and the building of a new retaining wall, in connection with the post office, in the town of Woodstock, N.B. Presented 2nd July, 1903.—*Mr. Ingram* ..... *Not printed.*

121. Return to an order of the House of Commons, dated 8th April, 1903, for a statement showing amount expended each year since the 30th June, 1890, on public works of all kinds in Toronto, including Toronto harbour; showing the nature of each class of work in respect of which such expenditure has been made. Presented 2nd July, 1903.—*Mr. Grant* ..... *Not printed.*

122. Return to an order of the House of Commons, dated 18th May, 1903, for a copy of the receipt given for price of acquisition of site of new post office at L'Assomption; copies of all cheques issued in payment of any sums expended in connection with the purchase of site of said new post office, or expenses connected therewith. Presented 2nd July, 1903.—*Mr. Monk* ..... *Not printed.*

122*a*. Return to an address of the House of Commons, dated 18th May, 1903, for copies of all letters addressed to the government by Rudolph Arbour, Phineas Viger, Vital Racette, Joseph Ed. Duhamel, Charlemagne Laurier, M.P., and all answers thereto, in respect to a new post office for the town of L'Assomption, in regard to the contract for the acquisition of a post office site. Also a copy of the contract of sale; copies of tenders for building said post office, and of all reports sent in by the architect, in reference to said site and new building. Presented 2nd July, 1903.—*Mr. Monk.* *Not printed.*

123. Return to an order of the House of Commons, dated 28th April, 1902, showing the amount of money spent on the St. Lawrence River from Montreal to Quebec, with the object of making Montreal a national port. Presented 2nd July, 1903.—*Mr. Davis* ..... *Not printed.*

124. Copy of the contract for steamer service between the dominion of Canada and South Africa. Presented 7th July, 1903, by Sir Richard Cartwright. ..... *Not printed.*

125. Return to an address of the House of Commons, dated 11th May, 1903, for copies of all correspondence, orders in council, and other documents, in anywise relating to improvements or work done by the government of the United States: 1st. In the Detroit River and Lake Erie. 2nd. In other international waters. Presented 10th July, 1903.—*Mr. Cowan* ..... *Not printed.*

126. Return to an address of the House of Commons, dated 4th May, 1903, for copies of all correspondence between the city of Vancouver and other persons, and the government of the Dominion, or any member thereof, relating to grant or lease of False Creek. Presented 13th July, 1903.—*Mr. Earle* ..... *Not printed.*

127. Return to an order of the House of Commons, dated 1st June, 1903, for copies of all papers and documents connected with the enumeration of the parish of Kars, King's County, N.B., in the Census of 1901; including copies of all correspondence between the Rev. Joseph McLeod, D.D., and Census Commissioner Blue, in relation thereto. Presented 13th July, 1903.—*Mr. Lancaster.* *Not printed.*

128. Return to an address of the House of Commons, dated 11th May, 1903, for copies of all orders in council, and all correspondence in connection therewith, respecting the purchase in Canada, by or through the government of Canada, or any department, or officer thereof, of any horses, hay, oats, material, supplies, animals, or merchandise, for the Imperial government, or any department, or officer thereof, during the years 1900, 1901 and 1902. Presented 15th July, 1903.—*Mr. Borden (Halifax).* ..... *Not printed.*

129. Return to an address of the Senate, dated 1st of June, 1903, for a statement showing, year by year, the quantities of each kind of wood entered at the port of Ottawa for exportation, since 1892 up to date. A similar statement for the port of Montreal. A similar statement for the port of Three Rivers. A similar statement for the port of Quebec. Presented (Senate) 15th July, 1903.—*Hon. Mr. Landry* ..... *Not printed.*

130. Return to an address of the Senate, dated 1st of June, 1903, for a statement showing, year by year, from 1896 up to date, the number of saw-logs and of other pieces of wood which have passed through the St. Maurice slides, distinguishing the number of pieces stopped respectively at Grandes Piles, Grand'Mére, and at the Shawenegan Falls (to be used at each of these localities or forwarded from each of these localities), from the number of pieces taken down as far as Three Rivers. Presented (Senate) 15th July, 1903.—*Hon. Mr. Landry* ..... *Not printed.*

131. Return to an order of the House of Commons, dated 22nd July, 1903, for a copy of the Report of the British Columbia Salmon Commission. Presented 22nd July, 1903.—*Hon. J. R. Préfontaine.* *Not printed.*

CONTENTS OF VOLUME 13—*Continued.*

132. Return to an order of the House of Commons, dated 24th July, 1903, covering map showing: 1. Odd sections finally reserved for the Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company for selection of its land grant. 2. Original tract reserved for same purpose, and also map showing: 3. Area available throughout the whole North-west Territories out of which the company was authorized to select its land grant, as per letter of 25th January, 1900, of the minister of the interior, with copy of such letter. Presented 24th July, 1903.—*Mr. Sifton*.....*Not printed.*

132*a*. Partial return to an address of the House of Commons, dated 4th May, 1903, for copies of all papers, orders in council, letters and correspondence, between the government, or any member thereof, in reference to land granted to the Qu'Appelle, Long Lake and Saskatchewan Railway Company; and also all letters, papers, correspondence, and orders in council, if any, with the Saskatchewan Land Company, in reference to their acquisition of the land granted to said Qu'Appelle, Long Lake and Saskatchewan Railway Company. And also as to their acquisition of the even-numbered sections within the territory granted to said railway company. Presented 24th July, 1903.—*Mr. LaRivière*.....*Not printed.*

132*b*. Supplementary return to 132*a*. Presented 21st August, 1903.....*Not printed.*

133. Return to an order of the House of Commons, dated 24th July, showing copies of papers of record in the department of the interior, with regard to the claims of Mr. Amos Barnes, for damages with respect to land occupied by him at East Selkirk, Manitoba. Presented 24th July, 1903.—*Mr. Sifton*.....*Not printed.*

134. Return to an address of the House of Commons, dated 1st June, 1903, for copies of all communications addressed to the government, or to any minister, in relation to the grant of fishing rights in James Bay, or Hudson's Bay, to Archibald McNee, of Windsor, Ontario. Copies of all answers thereto, and any communications relating to the transfer of said lease. Presented 24th July, 1903.—*Mr. Lancaster*.....*Not printed.*

135. Return to an order of the House of Commons, dated 11th May, 1903, for copies of all reports, correspondence, petitions and papers that are to be found in the department of marine and fisheries, or in any other department, concerning the construction and placing of fish-ladders in the Rivière du Nord, crossing the county of Two Mountains, from its confluence with the Ottawa River, at St. André, in the county of Argenteuil, to St. Jerome, in the county of Terrebonne, for the purpose of preventing the destruction of fish in the Rivière du Nord. Presented 24th July, 1903.—*Mr. Ethier*. *Not printed.*

136. Return to an order of the House of Commons, dated 1st June, 1903, for a copy of all returns from the local clerks of court, or other officers of the government, in the North-west Territories, showing number, names, occupations, residence, etc., of all persons naturalized in the North-west Territories during the past ten years, or any portion thereof; as well as all other information contained in such returns. Presented 31st July, 1903.—*Mr. Borden (Halifax)*.....*Not printed.*

137. Return to an address of the Senate, dated 15th July, 1903, showing the amount of customs and excise duties collected at the several ports of entry in the North-west Territories for the year ending the 30th June last. Presented (Senate) 31st July, 1903.—*Hon. Mr. Perley*.....*Not printed.*

138. Return to an order of the House of Commons, dated 4th August, 1903, for a copy of a Memorandum on the Status of the Question of Fishery Rights between the Federal and Provincial Governments. Presented 4th August, 1903.—*Hon. J. R. Préfontaine*.....*Not printed.*

139. Return to an order of the House of Commons, dated 5th August, 1903, containing the following maps: 1. Short Line Survey, Rivière Ouelle and Edmunston. 2. Short Line Railway, from height of land to Long Lake. Presented 5th August, 1903.—*Sir Wilfrid Laurier*.....*Not printed.*

140. Return to an order of the House of Commons, dated 1st June, 1903, giving: 1. The total number of Intercolonial freight cars in use on connecting lines on the first day of March, 1902, and the first day of March, 1903, respectively, or the nearest dates to these that the car mileage reports are prepared; the list of roads using these cars at the dates named, and the number in use on each road; and the number of days such cars have been in use on such roads. 2. The number of cars belonging to connecting lines in use on the Intercolonial on the first of March, 1902, and the first of March, 1903; the names of the roads owning or controlling these cars, and the number of days such cars have been in use on the Intercolonial on these dates. Presented 5th August, 1903.—*Mr. Haggart*.....*Not printed.*

141. Return to an order of the House of Commons, dated 1st June, 1903, giving: 1. The number of ties that have been issued in the sidings and on the main lines of the Intercolonial Railway, and charged to the capital account, for the years 1900-01 and 1901-02, and to the first of April, 1903. 2. Also as to the number of ties purchased between the 30th June, 1902, and the first of April, 1903.

CONTENTS OF VOLUME 13—*Concluded.*

The list of names from whom purchased, and the quality and prices paid. 3. The number of ties that have been actually used in the track, between the 30th of June, 1902, and the first of April, 1903, and charged to ordinary maintenance. Presented 5th August, 1903.—*Mr. Haggart.*

Not printed.

142. Return to an address of the House of Commons, dated 25th August, 1903, for copies of cablegrams that passed between the Honourable the Secretary of State for the Colonies and His Excellency, relative to the publication of the proceedings of the Colonial Conference. Presented 25th August, 1903.—*Sir Wilfrid Laurier*..... *Not printed.*

143. Return to an order of the House of Commons, dated 15th September, 1903, for copies of the report on the resources of the country between Quebec and Winnipeg along the line of the National Transcontinental Railway. Presented 15th September, 1903.—*Sir Wilfrid Laurier.*

Printed for both distribution and sessional papers.

144. Return to an address of the House of Commons, dated 18th May, 1903, for copies of the correspondence exchanged between the Dominion government and that of the province of Quebec regarding the following claims produced by the latter: 1. $1,425,855, being the share of the province of Quebec in the indemnity paid by the United States government as a compensation for the advantages accorded to American fishermen. 2. $490,000, indemnity due to the province of Quebec for leases and licenses granted by the federal government to fish in the interior and salt waters within the limits of the said province. Presented 11th September, 1903.—*Mr. Lemieux.*

Not printed.

145. Return of the regulations made by the governor in council under the authority of section 47 of the Dominion Lands Act, applicable or relating to the Yukon territory. Presented 10th October, 1903, by Sir Wilfrid Laurier..... *Not printed.*

146. Copy of correspondence respecting the arrangements entered into between the department of the interior and the North Atlantic Trading Company, for the promotion of emigration to Canada from the continent of Europe. Presented 16th October, 1903, by Hon. J. Sutherland... *Not printed.*

147. Return to an address of the Senate, dated 7th October, 1903, for a copy of the returns to the finance department for the years 1896 and 1897 of the Mutual Reserve Fund Life Association. Presented (Senate) 16th October, 1903.—*Hon. Mr. Domville*..... *Not printed.*

147*a*. Return to an address of the Senate, dated 2nd October, 1903, for a statement of the affairs of the Mutual Reserve Life Insurance Company of New York, as last sent to the insurance department. Presented (Senate) 16th October, 1903.—*Hon. Mr. Domville* .... *Not printed.*

148. Papers in connection with the Quebec bridge. Presented 20th October, 1903, by Hon. W. S. Fielding ..... *Printed for both distribution and sessional papers.*

149. Correspondence and papers in relation to the Alaska boundary question. Presented 22nd October, 1903, by Sir Wilfrid Laurier.. ..... *Printed for both distribution and sessional papers.*

150. Report of the commissioners appointed to examine the cattle guards in use on the principal lines of railway in Canada and the United States, and also of such inventions of this nature as were presented. Presented 22nd October, 1903, by Hon. W. S. Fielding..... ..... *Not printed.*

151. Return to an address of the Senate, dated 15th June, 1903, for copies of all orders in council, correspondence, reports and recommendations of the warehouse commissioner, and other documents in anywise relating to the Grain Act, since January, 1901. Presented (Senate) 31st August, 1903. —*Hon. Mr. Young*..... *Not printed.*

152. Memorandum of settlement terms of the agreement made between the government of Canada and the Government of Manitoba for the settlement of the school question. Presented (Senate) 3rd September, 1903, by Hon. R. W. Scott..... *Not printed.*

153. Return to an address of the Senate, dated 3rd September, 1903, for a copy of the agreement referred to by the Honourable Mr. Roblin, in his interview with the gentlemen who composed the catholic deputation, as having been entered into and signed by Sir Wilfrid Laurier, representing the Dominion Government, on one side, and Honourable Mr. Clifford Sifton, representing the province of Manitoba, on the other side, together with a copy of the "reply given in writing to the memorial of the delegates, by the premier, Sir Wilfrid Laurier, and the minister of justice, the Honourable Mr. Fitzpatrick," and that, if no written reply was given by the premier, the senate be informed of the character of the demands made by said deputation, and of the answer given by, or of the action taken thereon, by the premier and the minister of justice. Presented (Senate) 24th September, 1903.—*Hon. Mr. Bernier*..... *Not printed.*

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE FISCAL YEAR

FROM JULY 1, 1901, TO JUNE 30, 1902

SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE REVISED STATUTES OF CANADA, CHAPTER 37, SECTION 28

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY S. E. DAWSON, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1903

[No. 20—1903]

To His Excellency the Right Honourable the Earl of Minto, G.C.M.G.,
&c., &c., &c., Governor General of Canada, &c., &c., &c.

MAY IT PLEASE YOUR EXCELLENCY,—

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the past fiscal year from July 1, 1901, to June 30, 1902.

All of which is respectfully submitted.

ANDREW G. BLAIR,
Minister of Railways and Canals.

CONTENTS.

	Part.	Page.
Report of the Deputy Minister of Railways and Canals	..	ix
Memorandum respecting transcontinental railway communication and routes of canal navigation	I	3
Report of the Chief Engineer, including Reports of General Manager of Government Railways, Superintendents of Canals, and Ottawa River Surveys	I	18
Report of the Secretary, Railway Committee of Privy Council	I	201
Statements of Accountant of Department	II	3
Railway Subsidies, Acts passed respecting	III	3
Miscellaneous Statements, including—		
Subsidy agreements for the construction of railways	IV	2
Contracts entered into	IV	4
Water power and other public property leased	IV	8
Property conveyed and damages released	IV	14
Canal Statistics for 1901	V	3
Steam and Electric Railway Statistics for 1901-1902	VI	3

[*For Index see end of Volume.*]

MAPS

ACCOMPANYING REPORT OF THE DEPUTY MINISTER.

RAILWAY SYSTEM.

1. General map of the Dominion.
2. British Columbia and Alberta.
3. Manitoba and Assiniboia and part of Saskatchewan.
4. Ontario and Manitoba.
5. Ontario and Quebec.
6. Nova Scotia, New Brunswick, Prince Edward Island and part of Quebec.

CANAL SYSTEM.

7. Canadian Ship Canal, and also St. Mary's Falls Canal, Mich., U.S.A.
8. Line of Welland Canal between Lakes Erie and Ontario.
9. Trent Navigation and Murray Canal.
10. St. Lawrence, Ottawa, Rideau and Richelieu Canals.
11. Plan of Lake St. Louis between Ste. Anne and Beaurepaire.

ERRATA.

Part II. Statement No. 3 (Statement of Subsidies)—

For total paid to Quebec Bridge Company, read $242,000 instead of $74,750.

For total paid to St. Mary River Railway Company, read $75,000 instead of $242,-430.

REPORT OF THE DEPUTY MINISTER.

To the Honourable

Andrew G. Blair,

Minister of Railways and Canals.

Sir,—I have the honour to submit the annual report of the Department of Railways and Canals for the fiscal year ended June 30, 1902.

The annual reports of the engineers, together with general and special reports from superintendents, both of railways and canals, and from other officers in the department, are given in appendices.

In Part II. will be found statements showing the amounts expended during the past fiscal year in construction, repair and maintenance of the several works under the department; also statements showing total expenditure on each canal since its construction, and on each of the government railways; also a statement showing the payments made, year by year, to subsidized railways, with the aggregates of such payments.

GENERAL SUMMARY.

The expenditures of the department for the fiscal year 1901-2, on its works of construction, operation and maintenance, both railway and canal, and in furtherance, by subsidy under authority of Parliament, of outside railway enterprises, amount as follows:—

On railways, a total of $13,407,152.11; of which $5,430,360.99 was chargeable to capital account, $2,115,691.58 to income, and $5,861,099.54 to revenue. There was paid out as subsidies to railways other than the government roads, a total of $2,093,939.

On canals, a total of $2,978,770.55; of which $2,114,689.88 was chargeable to capital, $216,703.14 to income, and $647,377.53 to revenue (for staff and repairs).

Adding to the above a further sum of $34,138.50 for miscellaneous expenditures, the grand total of expenditures for the year on railways and canals amounted to $16,420,061.16.

The total revenue derived from the government works for the past fiscal year, was as follows:—

From railways, $5,918,990.43; from canals, $300,413.68; of which the sum of $233,037.82 was derived from tolls, and $57,375.86 from hydraulic rents.

The government expenditure on railways, prior to and since the date of Confederation (July 1, 1867) up to June 30, 1902, amounts, on capital account, to $136,990,338.42,

which includes the sum of $25,000,000 granted to the Canadian Pacific Railway Company for its main line. In addition, there has been expended from the consolidated fund, including $27,831,830.37* paid as subsidies to railways other than the Canadian Pacific Railway, and $92,991,623.19, as working expenses of the government railways, a total of $121,870,316.68; making a total railway expenditure of $258,860,655.11. Of this amount, the sum of $13,881,460.65 was expended on construction works executed prior to Confederation on portions of what is now the Intercolonial Railway.

The total revenue received from the government railways from July 1, 1867, to June 30, 1902, amounts to $84,357,753.83.

The government expenditure on canals from July 1, 1867, to June 30, 1902, amounts, on capital account, to $83,519,103.86, and from the consolidated fund to $18,965,441.90; making a total of $102,484,545.76.

The total revenue derived from canals during the same period is $13,017,756.69.

The total expenditure on railways and canals from July 1, 1867, to June 30, 1902, is, as above, $361,345,200.87, to which must be added for miscellaneous expenditures, embracing both, $557,634.27; making a grand total of $361,902,835.14.

The total revenue derived from both railways and canals during the same period amounts to $97,375,510.52.

Details of the above will be found in the statements of the accountant of the department, Part II., pages 3 to 47, inclusive.

RAILWAYS.

The present report deals with those railways of the Dominion directly controlled by the Federal Government, and others towards the construction of which subsidies have been granted or authorized.

In an appendix will be found a special statistical report, embodying returns for the fiscal year ended June 30, 1902, made by Canadian railway companies, as required by statute. This report gives detailed information as to railroad operations in Canada, including the government roads.

SUMMARY OF RAILWAY STATISTICAL RETURNS.

Under the provisions of the Railway Act, 51 Vic., chap. 29, section 4 (1888), all railway companies, whether otherwise within the legislative authority of Parliament or not, are required to furnish certain statistical returns as defined in sections 298 to 305, inclusive, of the Act, and by the Act 63-64 Vic., chap. 23 (1900), street railways and tramways are made subject to the same requirement.

*This includes the annual subsidy of $186,600 to the Atlantic and North-west Railway Company for 20 years from July 1, 1899, which is paid through the Finance Department. It does not include the annual payment of $119,700 as interest at 5 per cent on the sum of $2,394,000, payable to the province of Quebec for the line from Quebec to Ottawa, which sum has been transferred to the public debt.

Steam Railways.

The number of steam railways in actual operation, including the two government roads, the Intercolonial and the Prince Edward Island Railways, at the close of the fiscal year, June 30, 1902, was 165; some of these, however, are amalgamated or leased, making the total number of controlling companies 79, not including the government railways. The number of companies absorbed by amalgamation was 49, and the number of leased lines was 36.

At that date the number of miles of completed railway was 18,868, an increase of 574 miles, besides 2,829 miles of sidings. The number of miles laid with steel rails was 18,761, of which 647 miles was double track. The number of miles in operation was 18,714.*

The paid up capital amounted to $1,098,852,206, an increase of $56,066,667.† The gross earnings amounted to $83,666,502, an increase of $10,767,574, and the working expenses aggregated $57,343,592, an increase of $6,974,866, compared with those of the previous year; leaving the net earnings $26,322,911, an increase of $3,792,888. The number of passengers carried was 20,679,974, an increase of 2,294,252, and the freight traffic amounted to 42,376,527 tons, an increase of 5,377,156 tons. The total number of miles run by trains was 55,729,856, an increase of 2,380,402.

The rolling stock comprised: For passenger service 2,020 cars, for freight service 75,240, including 48,790 box and cattle cars, an increase of 2,886, and for operation and maintenance service 1,631; making a total of 78,891 cars. Of these, 58,111 were equipped with air-brakes, and 66,882 were fitted with automatic couplers, an increase of 5,748 over the previous year. The locomotives numbered 2,444.

The accident returns show a total of 1,328 persons injured during the year. Of these, 176 were passengers, 932 employees, and 220 others. 330 persons were killed, 19 being passengers, 146 employees, and 165 others. 42 passengers, 70 employees, and 32 other persons were injured, and 5 passengers, 11 employees, and 5 others were killed, through jumping on or off the trains or engines when in motion. 54 employees and 80 other persons were injured, and 36 employees and 106 other persons were killed, through walking or being on the track. 13 passengers, 156 employees and 9 others were injured, and 4 passengers, 21 employees and 5 others were killed, through falling from cars or engines. 2 employees and 58 other persons were injured, and 1 passenger, 1 employee and 39 other persons were killed, by being struck by engines or cars at highway crossings. The accidents due to the work of coupling cars numbered 241 (15 being fatal), against 290, 363, 355 and 343 in the four preceding years, respectively.

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*Of this mileage the Canadian Pacific Railway comprised 7,321 miles (4,582·50 miles owned and 2,738·50 leased); the Grand Trunk Railway, 3,157·48 miles (2,983 miles owned, and 174·42 leased); the Intercolonial, 1,333·94 miles; the Canada Atlantic, 458·60 miles (400·30 miles owned, and 58·30 leased), and the Canadian Northern, 1,248·20 miles (892·62 owned, and 355·58 leased).

†The main items of this increase are the following:—Canadian Northern, $19,810,480; Canadian Pacific, $9,345,156; Grand Trunk, $2,996,558; Intercolonial, $4,670,590.80.

Electric Railways (including street railways and tramways).

At the close of the fiscal year ended June 30, 1902, there were 558* miles completed, of which 553* miles were laid with steel rails, 169* miles being double track. The paid up capital amounted to $41,593,063,† of which the municipal aid amounted to $173,000 (including $100,000 subscription to shares, and $40,000 loan). The number of miles in operation was 557.* The gross earnings aggregated $6,486,438, an increase of $718,155, and the working expenses $3,802,855, an increase of $367,692, leaving the net earnings $2,683,583, an increase of $350,463. The number of passengers carried was 137,681,402,‡ an increase of 16,744,746, and the freight carried amounted to 266,182 tons, a decrease of 21,744 tons. The car mileage was 35,833,841, an increase of 4,083,087 miles; 8 passengers were killed. Power was supplied in 13 cases by water, and in 27 cases by steam. Ontario has 334 miles, Quebec 140, New Brunswick 12, Nova Scotia 12, Manitoba 13, and British Columbia 45 miles. Returns were received from 39 companies. One company has ceased operations.

All Railways, Steam and Electric.

At the close of the fiscal year ended June 30, 1902, the conjoined statistics of steam and electric roads (including street railways), show the following results:—The number of companies making returns was 118. There were 19,426 miles of railway completed, 19,271 miles being in operation. The paid up capital amounted to $1,140,445,269. The gross earnings were $90,152,940, and the total working expenses $61,146,447, making the net earnings $29,006,493; 158,361,376 passengers, and 42,642,709 tons of freight were carried; 27 passengers were killed.

GOVERNMENT RAILWAYS IN OPERATION.

The railways maintained by the government are: The Intercolonial, the Windsor Branch (maintained only), and the Prince Edward Island Railways.

Details respecting these railways and their operations will be found in the appendices, Part I., containing reports from the chief engineer of the department, the general manager of government railways, and the officials of these roads.

The gross earnings of all the government roads for the past fiscal year, 1901-2, amounted to $5,918,990.43, and compared with those of the preceding year, show an in-

*In the annual report for 1900-1, the figures given were 675 miles completed, 672 in operation, and 670 laid with steel rails, 158 double track. These figures are erroneous, certain companies having added the length of their second track to their mileage.

†In the statements furnished by the companies for 1900-1, some companies had included their floating debt in their paid up capital, the aggregate so included being $1,955,176, making the total $39,076,019. This error has now been corrected, except in the cases of four companies who have included their floating debt, the aggregate being $354,424.17, by which amount, accordingly, the paid up capital should be reduced.

‡The city street railways carried passengers as follows:—Montreal, 48,858,373; Toronto, 41,689,258; Ottawa, 6,988,370; Quebec, 4,192,799; Hamilton, 3,845,789; Winnipeg, 3,845,668; London, 3,744,469; Halifax, 2,540,000; St. John, 1,771,522; and Vancouver, Victoria and New Westminster (operated by one company and returns amalgamated), 7,670,468.

crease of $705,609.23. The gross working expenses amounted to $5,861,099.54, an increase of $122,048.

The net gain on the operations of the year was $57,890.89.

The Intercolonial produced a profit of $96,822.61; the Windsor branch (one-third of total earnings), a profit of $33,228.32, and the Prince Edward a loss of $72,160.04.

The above figures include rental, $140,000, paid for the extension of the Intercolonial into Montreal.

INTERCOLONIAL RAILWAY.

On March 1, 1898, the operations of the Intercolonial were extended to Montreal by means of leases obtained from the Grand Trunk and Drummond County Railway Companies, making an addition of 169·81 miles to the operation of the government line; its length being now 1,314·67 miles.

The leasing agreement with the Grand Trunk Railway Company, dated February 1, 1898, was confirmed by the Act 62-63 Vic., chap. 5 (1899). Its term extends for a period of ninety-nine years from March 1, 1898; the annual rental being fixed at $140,000.

Under authority of the Act 62-63 Vic., chap. 6 (1899), the Drummond County Railway from Chaudière to Ste. Rosalie, together with the branch from St. Léonard to Nicolet was acquired by the Dominion; conveyance being made by a deed dated November 7, 1899.

The accountant of the railway has dealt with the rental paid under the Grand Trunk Railway lease (the only one now remaining) as an addition to the ordinary working expenses, and, in his comparative statement of averages for each year, both with the rental included, and also with the rental omitted. The statements of the general manager, however, are based on figures from which the rental is omitted. This explanation will cover any seeming discrepancy of statement in the matter. The accountant of the department, in his statements (Part II.), includes the rental, and it is also included in my present report.

CAPITAL ACCOUNT.

During the fiscal year there was an addition of $4,670,590.80 to the capital account expenditure, making the total expenditure chargeable to 'capital' on the whole road as amalgamated under the Acts 54-55 Vic., chap. 50 (1891), and 62-63 Vic., chap. 5 and 6 (1899), up to June 30, 1902, $68,645,852.58.

The general manager, in his present report, sets down the total cost to June 30, 1902, as $68,310,619.55. The total cost up to that date is set down by the accountant of the department (Part II., p. 32), as $68,645,852.58 as above stated. This agrees with the public accounts. The difference, $335,233.03, is made up of two items, viz., expenditure on the old Montreal and European Short Line Railway between the years 1885

and 1894, $333,942.72, and expenditure on the Governor General's car in the year 1896, $1,290.31.

The additions made during the year included: for increased accommodation at Halifax, $71,928; at St. John, $111,299; at Sydney, $77,609; at Stellarton, $20,488; at Pictou, $42,661; and at Lévis, $75,341; for increased sidings, $157,998; for strengthening bridges, $93,431; for engine houses, $135,049; for additional rolling stock, including 32 locomotives and 1,302 box freight cars, $2,066,879; for applying air-brakes to freight cars, $23,688; for steel rails and fastenings, $188,190; Strait of Canso ferry, $293,000; arbitrators' awards, Eastern Extension Railway in N. S., $671,836, and in N. B., $280,692. Details will be found in the reports of the General Manager and other officers, Part I., pp. 59-117.

REVENUE ACCOUNT.

The gross earnings of the year amounted to $5,671,385.91, an increase of $699,150.04, and the working expenses to $5,574,563.30 (including $140,000 rent paid for the extension into Montreal), being an increase in comparison with the previous year (when the same rental was paid) of $114,140.66) the earnings exceeding the expenditure by $96,822.61; whereas in the previous year, the expenditure exceeded the earnings by $488,186.77. Of the expenditure for the past year, the item of 'locomotive power,' is answerable for $2,030,928.40, an increase of $59,940.70.

Comparing the earnings with those of the previous year, the passenger traffic produced $1,770,941.13, or 31·23 per cent of the gross earnings, an increase of $163,777.34; the freight traffic amounted to $3,644,513.42, or 64·26 per cent of the gross earnings, an increase of $523,507.27, and the carriage of mail and express freight produced $255,931.36, or 4·51 per cent of the gross earnings, an increase of $11,868.43. The earnings per mile of railway were $4,313.92, an increase of $531.81. The working expenses per mile (including rental of the extension to Montreal) amounted to $4,240.25, an increase of $86.81. The mileage of the railway was the same as in the previous year, namely, 1,314·67 miles.

GENERAL OBSERVATIONS.

The following is a comparison of the traffic of the past fiscal year with that of the previous year:—

The number of passengers carried was 2,186,226, an increase of 160,930; of freight 2,385,816 tons were carried, an increase of 274,506 tons. The through freight decreased 6,374 tons, and the local freight increased 280,880 tons.

Of flour and meal, 1,311,707 barrels were carried, an increase of 19,601. Of grain, 2,959,761 bushels were carried, a decrease of 575,603. Lumber showed an increase of 31,192,065 superficial feet, the total quantity carried being 428,051,029 feet. There was an increase of 2,572 in the number of live stock, of which 98,495 head were carried. Five hundred and seventy-one thousand two hundred and fourteen tons of coal, an increase of 64,624 tons, were carried. Of raw sugar, 11,643 tons were carried, an increase of 11,154 tons, only 489 tons having been carried the previous year. Of refined sugar,

29,632 tons, an increase of 3,811 tons, were carried. A total of 13,082 tons of fresh fish, an increase of 3,764 tons, and a total of 10,042 tons of salt fish, an increase of 274 tons, were carried. Of manufactured goods, 531,180 tons were carried, an increase of 54,652 tons.

Of ocean borne goods, other than deals, to and from Europe, via Halifax, the aggregate was 183,147 tons, an increase of 10,414 tons. Of this, 172,733 tons was local traffic.

The removal of snow and ice entailed an expenditure of $80,982.47, less by $15,872.54 than the cost of the previous year.

The permanent way and all structures and works have been kept in repair, and are in good order.

The train mileage (or number of miles run by trains) of the year was 6,067,947, an increase of 194,727 miles. The cost per train mile was 91·87 cents, 4·68 cents more than the previous year. In both years the rental of leased lines is included.

The value of stores on hand at the close of the fiscal year, including fuel, rails, and old material, was $1,535,377.20.

The work of fitting quick action air-brakes to freight cars has been continued; these brakes have been placed on 131 cars during the year, making the total number so fitted 4,109.

Two transfer bridges at Port Mulgrave and Point Tupper, respectively, have been completed for use in connection with the ferry steamer *Scotia,* by which trains are transferred over the Strait of Canso between Cape Breton and the mainland.

A number of interesting statistical and comparative tables and other information relating to the railway and the several features of its traffic during the past year and the previous year of its operation, will be found in the appended reports of the chief engineer of the department, and of the officers of the road.

WINDSOR BRANCH.

This road is 32 miles in length. It extends from Windsor Junction, on the Intercolonial Railway, to Windsor.

The railway is operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company. The company pay all charges in connection with the working of the traffic, two-thirds of the gross earnings being allowed them, the government taking the remaining one-third, and assuming all costs of maintenance of the road and works. This arrangement is carried out under an agreement dated December 13, 1892, which extends, for a further term of 21 years, arrangements similar to those made in 1871.

All charges for superintendence and supervision of maintenance of works are borne by the government; the duty of supervision being performed by the chief officers of the Intercolonial Railway.

The gross earnings of the government (one-third of gross receipts) credited to this branch, amounted to $49,604.59, an increase of $2,342.70. The expenses of maintenance amounted to $16,376.27, a decrease of $486.39, leaving a profit to the government of $33,228.32.

The road has been maintained in good order. Details will be found in the appendices.

PRINCE EDWARD ISLAND RAILWAY.

The mileage of this railway in operation was the same as in the previous year, namely, 209 miles.

CAPITAL ACCOUNT.

The total cost of the road and equipment chargeable to capital account at the close of the past fiscal year was $4,599,825.15; there being an addition during the year of $475,997.94; the principal items being an expenditure of $272,404.47, on the branch to Murray Harbour, and $177,595.53 for a combined railway and carriage bridge over the River Hillsborough, Charlottetown.

REVENUE ACCOUNT.

The gross earnings amounted to $197,999.93, and the working expenses to $270,159.97, the expenditure in excess being $72,160.04.

Compared with the previous year, the gross earnings show an increase of $4,116.45, and the working expenses an increase of $8,393.73. The railway carried 184,748 passengers, an increase of 26,955, producing $85,086.44, an increase of $6,396.71. Of freight, there were carried 75,381 tons, an increase of 1,685 tons, producing $95,577.79, a decrease of $1,848.06. The earnings from mails and sundries amounted to $16,335.70, a decrease of $1,432.20.

The train mileage (the number of miles run by trains) was 273,832, an increase of 3,577 miles.

The cost per mile run by trains was 98·65 cents, an increase of 1·77 cents; and the cost per mile of railway $1,292.63, an increase of $46.13.

The value of stores on hand at the close of the fiscal year was $66,978.94.

The road, with its buildings and rolling stock, has been maintained in a satisfactory condition.

Details of operation will be found in the appendices (Part I.), including the reports of the superintendent and other officers.

SURVEY FOR A RAILWAY TO GIVE ACCESS TO THE YUKON DISTRICT.

In the annual report for the fiscal year 1900-1, will be found a full report from the engineer in charge on this subject, and also (on p. XV.) a summary of the work done, and the conclusions arrived at.

RAILWAY SUBSIDIES.

The following pages show, in alphabetical sequence, the position of those companies whose dealings with the government in respect of subsidies are not yet closed. Reports of previous years give information as to companies whose subsidies have been fully earned and paid prior to July 1, 1901.

A tabulated statement of payments will be found in Part II., and a list of subsidy agreements entered into during the fiscal year in Part IV.

The several subsidy Acts passed in each year from 1882 will be found in Part III. No subsidies were authorized in the sessions of 1895, 1896, 1898 and 1902.

Information has been brought down to the end of the fiscal year 1901-1902 only, but, in supplement, the following list shows also the additional contracts entered into, and the payments made, between that date and December 1, 1902.

SUBSIDY CONTRACTS DURING 1901-1902 TO JUNE 30, 1902.

Atlantic and Lake Superior Railway Company.—From Caplin to Paspebiac, 30 miles; contract dated July 25, 1901.

Algoma Central and Hudson Bay Railway Company.—From Sault Ste. Marie, Ontario, towards Michipicoten river and harbour, and towards main line of the Canadian Pacific Railway, 40 miles; contract dated September 28, 1901.

Bruce Mines and Algoma Railway Company.—From a point on Algoma branch of the Canadian Pacific Railway at or near Bruce Lake station, northerly to a point at or near Rock lake, 9 miles; contract dated November 19, 1901.

Kootenay and Arrowhead Railway Company.—From Duncan lake towards Lardo or Arrow lake, B.C., or from Lardo to Arrow lake, 30 miles; contract dated August 26, 1901.

Montreal and Province Line Railway Company.—From Farnham, Quebec. to Frelighsburg, 19 miles; contract dated August 2, 1901.

Red Deer Valley Railway and Coal Company.—From Calgary to a point in township 29, range 23, 4th meridian, 55 miles; contract dated July 30, 1901.

Tilsonburg, Lake Erie and Pacific Railway Company.—From Tilsonburg to Ingersoll or Woodstock, Ontario, 28 miles; contract dated October 15, 1901.

Canadian Pacific Railway Company.—From westerly end of Waskada Branch, further westward 20 miles; contract dated December 28, 1901.

Canadian Pacific Railway Company.—From Stonewall Branch or Selkirk Branch to Icelandic river, via Gimli, 35 miles; contract dated February 8, 1902.

Middleton and Victoria Beach Railway Company.—From Bridgetown to Victoria Beach, N.S., 30 miles; contract dated May 5, 1902.

Middleton and Victoria Beach Railway Company.—From Bridgetown to Middleton, N.S., 11 miles; contract dated May 5, 1902.

Ottawa Northern and Western Railway Company.—For their line in and through Hull, P.Q., 4 miles; contract dated February 15, 1902.

Schomberg and Aurora Railway Company.—From G. T. R. between Ling and Newmarket, Ont., to Schomberg, 15 miles; contract dated February 3, 1902.

ADDITIONAL SUBSIDY CONTRACTS FROM JUNE 30, 1902, TO DECEMBER 1, 1902.

Algoma Central and Hudson Bay Railway Company.—From Sault Ste. Marie to a point on C. P. R. at or near White river, 135 miles; contract dated October 15, 1902.

La Compagnie du Chemin de fer de Colonisation du Nord.—From Labelle, P.Q., to Nominingue, 22 miles; contract dated July 8, 1902.

Canadian Pacific Railway Company.—From Dyment to New Klondyke Mining District, Ont., 7 miles; contract dated August 28, 1902.

Montfort and Gatineau Colonization Railway Company.—From Arundel to a point in Townships of Preston and Hartwell, P.Q., 30 miles; contract dated July 30, 1902.

Quebec and New Brunswick Railway Company.—Extension of St. Francis Branch of Temiscouata Railway to mouth of St. Francis river, 3 miles; contract dated August 25, 1902.

Schomberg and Aurora Railway Company.—Extension from its easterly terminus to a point at or near Bond's Lake, Ont., 4 miles; contract dated July 30, 1902.

SUBSIDIES PAID DURING THE FISCAL YEAR ENDED JUNE 30, 1902.

Atlantic and Lake Superior Railway	$ 14,800 00
Canadian Northern Railway	939,891 00
Thousand Islands Railway	5,440 00
Ottawa Northern and Western Railway	8,192 00
Canadian Pacific Railway (Crow's Nest Pass)	22,946 00
Canadian Pacific Railway (Pipestone Branch)	67,200 00
Inverness and Richmond Railway	86,800 00
Quebec Bridge	167,430 00
Montreal and Province Line Railway	58,560 00
York and Carleton Railway, N.B.	18,336 00
Algoma Central and Hudson Bay Railway	380,624 00
Lake Erie and Detroit River Railway	137,120 00
Atlantic and North-western Railway	186,600 00
Total	$2,093,939 00

ADDITIONAL SUBSIDY PAYMENTS FROM JULY 1, 1902, TO DECEMBER 1, 1902.

Great Northern Railway	$ 37,777 20
Canadian Pacific Railway (Crow's Nest Pass)	60,000 00
Canadian Pacific Railway (West Selkirk Branch)	81,650 00
Canadian Pacific Railway (Dyment Branch)	22,336 00
Inverness and Richmond Railway	55,000 00
Quebec Bridge	108,840 00
Atlantic and Lake Superior Railway	46,500 00
Algoma Central and Hudson Bay Railway	202,912 00
Cape Breton Railway	65,280 00
	$680,295 20

GOVERNMENT ACTION AS TO SUBSIDIZED RAILWAYS.

NOTE.—The numbers within brackets after the title of the company refer to the lists of railways subsidized by Parliament, in Part III.

With regard to the several lines of railway subsidized by the Dominion, the following represents the action taken and the progress made, in so far as the Dominion government is concerned; only those lines and companies being mentioned as to which definite steps, other than merely preliminary, have been taken towards securing the subsidy.

The following shows the aggregate of the payments made on subsidy account:—

For the fiscal year	1883-84,	ended on June 30,	1884	$ 208,000 00
do	1884-85	do	1885	403,245 00
do	1885-86	do	1886	2,171,249 00
do	1886-87	do	1887	1,406,533 00
do	1887-88	do	1888	1,027,041 92
do	1888-89	do	1889	846,721 83
do	1889-90	do	1890	1,678,195 72*
do	1890-91	do	1891	1,265,705 87*
do	1891-92	do	1892	1,248,215 93*
do	1892-93	do	1893	811,394 07*
do	1893-94	do	1894	1,229,885 10*
do	1894-95	do	1895	1,310,549 10*
do	1895-96	do	1896	834,745 49*
do	1896-97	do	1897	416,955 30*
do	1897-98	do	1898	1,414,934 78*
do	1898-99	do	1899	3,201,220 05*
do	1899-1900	do	1900	725,720 35*
do	1900-01	do	1901	2,512,328 86*
do	1901-02	do	1902	2,093,939 00*
				$24,806,580 37

*In these amounts the subsidy of $186,600 a year payable to the Atlantic and North-west Railway Company, for 20 years from July 1, 1889, is included. Payment is made by the Finance Department.

To the above there have to be added the following exceptional subsidies:

The Canada Central Railway, paid between 1878-83..	1,525,250 00
The Canadian Pacific Railway extension from St. Martin's Junction to Quebec, paid in 1885	1,500,000 00
Total subsidies paid from 'Consolidated Fund' up to June 30, 1902..	$27,831,830 37
The main line subsidy to the Canadian Pacific Railway was paid from 'Capital,' amounting to.....	25,000,000 00
Total paid as subsidies.	$52,831,830 37

The above does not include the amount $2,394,000, due to the province of Quebec for the railway between Ottawa and Quebec, which has been transferred to the public debt, and on which interest at 5 per cent is paid, amounting to $119,700 a year. (See note on page 46 of the accountant's statement, Part II.)

Albert Southern Railway Company.

(See Annual Report of 1891-92.)

Algoma Central and Hudson Bay Railway Company.

(See Nos. 437 and 479.)

This company was incorporated as 'The Algoma Central Railway Company' by the Act 62-63 Vic., chap. 50 (1899), with powers to construct a line of railway from the town of Sault Ste. Marie to a point on the Canadian Pacific Railway at or near Dalton Station, and thence south-westerly to Michipicoten Harbour, Lake Superior.

These powers were amended by the Act 63-64 Vic., chap. 49 (1900), and the company were empowered to build a railway from Sault Ste. Marie to a point between the rivers Magpie and Michipicoten, and thence to the main line of the Canadian Pacific Railway, and southerly to Michipicoten Harbour.

By the Act I. Ed. VII., chap. 46 (1901), the name of the company was changed as above, and they were empowered to build an extension of their railway from a point on the Canadian Pacific Railway northerly to some point on James bay, not further north than Equam river.

By the Railway Subsidy Act of 1899, 62-63 Vic., chap. 7, item 23, the grant of a subsidy of $3,200 a mile, with a further subsidy of 50 per cent on expenditure in excess of $15,000 a mile, the whole subsidy not to exceed $6,400 a mile, was authorized for 40 miles of a railway from Sault Ste. Marie towards Michipicoten river and harbour, and towards the Canadian Pacific Railway.

The company having applied for this subsidy, a contract was entered into with them, accordingly, on September 28, 1901, under authority of orders in council dated May 30 and August 10, 1901, the work to be completed by May 1, 1902.

By the Railway Subsidy Act of 1900, 63-64 Vic., chap. 8, item 4, the grant of a similar subsidy to the company was authorized for an extension of 25 miles from the end of the 40 miles section above mentioned, and also for 25 miles from Michipicoten harbour towards the main line of the Canadian Pacific Railway.

Under authority of an order in council, dated January 6, 1902, a contract was entered into with the company on February 5, 1902, for the work so subsidized, the works to be completed by October 1, 1903, on the Michipicoten branch, and by May 1, 1902, on the 25 miles of the main line.

During the past fiscal year, payments have been made to the company for work done under these two contracts as follows:—For the first 40 miles of their main line, $240,624; for the portion from the 40th to the 65th mile, $63,200, and for the Michipicoten branch, $76,800; making the total payments $380,624 up to June 30, 1902.

Atlantic and Lake Superior Railway Company.

(See No. 524.)

This company was incorporated by the Act 56 Vic., chap. 39 (1893), with powers to construct or acquire a line of railway from a point at or near Gaspé bay in the province of Quebec, to a point at or near the St. Mary river in the district of Algoma, in the province of Ontario, and was authorized to enter into agreement with certain companies named for the purchase or lease of their railways, in whole or in part, and their franchises, between the points named.

Agreements were made by the company, and were confirmed by Parliament by the Act 57-58 Vic., chap. 63 (1894), as follows:—

(1) For the purchase of the Baie des Chaleurs Railway Company's railway and appurtenances and their franchises. (2) For the use of a bridge to be constructed across the River St. Lawrence, opposite the city of Montreal, to be built by the Montreal Bridge Company. (3) For the purchase of the Great Eastern Railway between Yamaska and St. Gregoire, in the province of Quebec. (4) For the purchase from the Ottawa Valley Railway Company of their railway between Lachute and St. Andrews in the province of Quebec, and their franchises. The Act provided that the railways named should be completed within three years, and the bridge within five years.

Difficulties, however, arose; the property of the Atlantic and Lake Superior Railway Company was ultimately vested in trustees of the bondholders, who, by the Act 1 Ed. VII., chap. 48, 1901, were authorized, notwithstanding anything contained in any Act of Parliament, to repair and renew the road-bed and bridges of the railway between Metapedia and Caplin, and to construct the railway from Caplin to a point near Paspebiac; such powers of construction to be exercised before December 31, 1902; also to operate the railway between Metapedia and Paspebiac, the Baie des Chaleurs division.

By the Subsidy Act of 1901, 1 Ed. VII., chap. 7, item 9, the grant of a subsidy was authorized for the 30 miles between Caplin and Paspebiac, namely, of $3,200 a mile, with a further subsidy of 50 per cent of cost in excess of $15,000 a mile; in all, not exceeding $6,400 a mile; the subsidy contract to be made 'with the trustees or receivers under mortgage from the Atlantic and Lake Superior Railway Company.' The Act

provided for payment out of the subsidy, 1st, for certain bridge superstructures, the amount being limited to $35,000; 2nd, for the completion of the road-bed; 3rd, towards payment of claims for labour, materials, and supplies in that connection.

Under date July 25, 1901, a subsidy contract was entered into accordingly, and up to June 30, 1902, payment has been made to the extent of $14,800, namely, for one of the bridge structures, in accordance with the provisions of the Act.

It has to be observed that, as stated in the annual report of the department for the year 1894-95, subsidy has been paid to the Baie des Chaleurs Railway Company for this railway, namely, from Metapedia eastwardly towards Paspebiac, 70 miles, to the extent of $620,000.

Atlantic and North-west Railway Company.

(See Annual Report of 1899-1900.)

Baie des Chaleurs Railway Company.

(See Annual Report of 1895-96.)

(See also Atlantic and Lake Superior Railway Company.)

Beauharnois Junction Railway Company.

(See Annual Report of 1895-96.)

Belleville and North Hastings Railway Company.

(See Annual Report of 1888-89.)

Boston and Nova Scotia Coal Company.

(See Annual Report of 1895-96.)

Brockville, Westport and Sault Ste. Marie Railway Company.

(See Annual Report of 1896-97.)

Bruce Mines and Algoma Railway Company.

(See No. 539.)

This company was incorporated by the Act of Ontario 62 Vic. (2) chap. 93 (1899), with power to construct a railway, to be operated either by steam or electricity, from a point in or near the village of Bruce Mines, in the district of Algoma; thence across the Algoma branch of the Canadian Pacific Railway to the Rock Lake Copper Mines, in the townships of Plummer and Coffin; thence northerly a distance of 30 miles, passing through the townships of McMahon and Gillmor.

By the Subsidy Act of 1901, chap. 7, item 24, a subsidy was authorized for 9 miles of railway from a point on the Algoma branch of the Canadian Pacific Railway at or near Bruce Lake Station, northerly to a point at or near Rock Lake, $3,200 a mile, with a further subsidy of 50 per cent on cost in excess of $15,000 a mile, not exceeding in all $6,400 a mile.

Under authority of an order in council of November 5, 1901, a contract was entered into with the company for the work, accordingly, the road to be completed by December 15, 1901.

The road is understood to have been practically completed during the fiscal year, but no portion of the subsidy was paid up to June 30, 1902.

Brantford, Waterloo and Lake Erie Railway Company.

(See Annual Report of 1895-96.)

Buctouche and Moncton Railway Company.

(See Annual Report of 1893-94.)

Canada Atlantic Railway Company.

(See Annual Report of 1888-89; also see in present report under head of Ottawa, Arnprior and Parry Sound Railway Company.)

Canada Eastern Railway Co. (formerly Northern and Western Railway Company of New Brunswick).

(See Annual Reports of 1894-95 and 1899-1900.)

Canadian Northern Railway Company.

(See Ontario and Rainy River Railway Company.)

Canadian Pacific Railway Company.

Revelstoke to Arrow Lake.

(See Annual Report of 1896-97.)

Canadian Pacific Railway Company.

(Gimli Branch.)

(See No. 541.)

By the Railway Subsidy Act of 1901, 1 Ed. VII., chap. 7. item 26, the grant of a subsidy of $3,200 a mile, with an addition of 50 per cent on cost in excess of $15,000 a mile, but not exceeding in all $6,400 a mile, was authorized for a railway from a point on the Stonewall branch or the Selkirk branch of the Canadian Pacific Railway to Icelandic river, by way of Gimli, not exceeding 35 miles.

That company having applied, a contract was entered into with them on February 8, 1902, under authority of orders in council of November 30, 1901, and January 25, 1902; the work to be completed by December 31, 1902.

Up to the close of the fiscal year June 30, 1902, no portion of the subsidy has been paid.

Canadian Pacific Railway Company.

(Waskada Branch.)

(See No. 494.)

By the Railway Subsidy Act of 1900, 62-64 Vic., chap. 8, item 19, the grant of a subsidy of $3,200 a mile, with an addition of 50 per cent on cost in excess of $15,000 a mile, but not exceeding in all $6,400 a mile, was authorized for a railway from the westerly end of the Waskada branch of the Canadian Pacific Railway, Manitoba, for 20 miles further.

That company having applied for the said subsidy, a contract was entered into with them for the work on December 28, 1901, under authority of orders in council, dated July 6, September 11, October 3, and November 30, 1901, the work to be completed by October 1, 1902. No portion of the subsidy was paid up to June 30, 1902.

Canadian Pacific Railway Company.

(Pipestone Branch—Antler Station to Moose Mountain.)

(See No. 447.)

By the Subsidy Act 62-63 Vic., chap. 7 (1899), a subsidy of $3,200 a mile, with an addition of 50 per cent on cost in excess of $15,000 per mile, but not exceeding in all $6,400 a mile, was authorized for a railway from some point near Antler Station to a point near Moose Mountain, Man., not exceeding 50 miles.

The Canadian Pacific Railway Company having applied, were admitted to contract for this work on December 18, 1899. During the fiscal year 1900-1, there was paid the sum of $92,800. The further sum of $67,200 was paid during the past fiscal year, making the total payments $160,000 up to June 30, 1902.

Canadian Pacific Railway Company.

(Crow's Nest Pass Railway.)

(See No. 415.)

By the special Act 60-61 Vic., chap. 5 (1897), authority was given for the grant to the Canadian Pacific Railway Company, of a subsidy towards the construction of a railway from Lethbridge, through the Crow's Nest Pass, to Nelson, such subsidy being to the extent of $11,000 a mile, not exceeding in the whole $3,630,000. A contract for this work was entered into with the company on September 6, 1897. The total distance is 342·75 miles. The road has been built and is in operation from Lethbridge to the south end of Lake Kootenay, a distance of 288·75 miles, except that at one point a temporary way will be replaced by a permanent straightened line. Of the remaining 54 miles to Nelson, the 20 miles between Nelson and Proctor are completed. During the past fiscal year the further sum of $22,946 was paid from the subsidy, making the total payments up to June 30, 1902, $3,344,720.

Cap de la Madeleine Railway Company.

(See Annual Report of 1896-97.)

Cape Breton Railway Extension Company.

(See Annual Report of 1895-96.)

(See No. 420.)

By the Subsidy Act of 1899, 62-63 Vic., chap. 7, the grant of a subsidy of $3,200 a mile, with an addition of 50 per cent on the cost in excess of $15,000 a mile, in all not exceeding $6,400 a mile, was authorized in aid of a railway from Port Hawkesbury, on the Strait of Canso, N.S., to St. Peter's, 30 miles.

The above company, having applied, were admitted to contract for the work on September 15, 1900. No portion of the subsidy has been paid up to the close of the fiscal year, June 30, 1902.

Caraquet Railway Company.

(See Annual Report of 1888-89.)

Central Railway Company of New Brunswick.

(See Nos. 40, 143, 156, 205, 353, 382 and 445.)

By the Act of 1884, 47 Vic., chap. 8, a subsidy not exceeding $128,000 was granted in aid of the construction of about 40 miles of the Central Railway, from the head of the Grand Lake to a point on the Intercolonial Railway between Sussex and St. John, N.B.

Under the authority of an order in council of June 5, 1886, a contract was made with the Central Railway Company, on July 7, 1886, for a line from Salmon river, at the head of Grand lake, to Norton, on the Intercolonial Railway; work to be completed by July 1, 1888. Certain work has been executed, but the contract obligations had not been carried out, and no portion of the subsidy was paid. The subsidy lapsed, but was revived by the Subsidy Act, 52 Vic., chap. 3 (1889).

On December 1, 1890, a new contract was made with the company for this work under the Subsidy Act of 1889, the limit of subsidy being $128,000; this contract covered also a subsidy for 4½ miles, the limit of which was $14,400, authorized by the Act 53 Vic., chap. 2, making a total subsidy of $142,400; the total length of road subsidized being 44½ miles. The date for completion was fixed as December 1, 1891.

By the Act 51 Vic., chap. 3, a grant as a subsidy to this company was authorized of used iron rails to the value $83,612.54, loaned to the St. Martin's and Upham Railway Company (which railway has been acquired by the Central Railway Company; the sale being approved by an order in council of November 15, 1887), the condition of the grant being that such rails should first be replaced by new steel rails. The new steel rails were substituted, and an order in council of October 18, 1889 authorized the transfer of the rails to the company.

By the Subsidy Act of 1894, 57-58 Vic., chap. 4, the grant of a subsidy not exceeding $48,000 to this company was authorized for 15 miles of their railway from Chipman station to the Newcastle coal fields, and a contract for the work was made with the company on September 7, 1895.

By the Subsidy Act 60-61 Vic., chap. 4 (1897), the subsidy of 1894 for the said 15 miles was, in effect, revoted, with addition of 50 per cent of cost over $15,000 a mile, the total subsidy not to exceed $6,400 a mile.

The Subsidy Act 62-63 Vic., chap. 7 (1899), authorized the grant of a subsidy of $3,200 a mile, with an addition of 50 per cent of cost over $15,000 a mile, the total subsidy not to exceed $6,400 a mile, for an extension from Newcastle coal fields to Gibson, 30 miles. An agreement was entered into with the company for this work on February 8, 1900.

Up to the end of the fiscal year 1898-99 there had been paid, including the value of the said rails, the sum of $226,012.54. No further payments have been made up to June 30, 1902.

Central Ontario Railway Company.

(See Annual Report for 1900-01.)

Chateauguay and Northern Railway Company.

(See Nos. 507, 508, 509.)

This company was incorporated by the Quebec Act of 1895 (1), chap. 64, its powers of construction being modified by the Act, chap. 75 of 1896.

By the Dominion Subsidy Act of 1900, 63-64 Vic., chap. 8, the grant to this company of a subsidy of $3,200 a mile, with an addition of 50 per cent on the cost in excess of $15,000 a mile, not exceeding in all $6,400 a mile, was authorized for 42 miles of a railway from a point in Hochelaga ward, Montreal, to a point on the Great Northern Railway in or near the town of Joliette, with a spur into the town.

The company were admitted to contract for this work on January 19, 1901.

On the same date they were admitted to contract for two other works, specially subsidized by the same Act, viz., for a railway, vehicular, and foot-passenger bridge from Bout de L'Isle to Charlemagne, at the junction of the Rivers Ottawa and St. Lawrence, $150,000, and for a bridge across the Lac Ouareau river, $15,000. No portion of these three subsidies has been paid during the past fiscal year.

Chatham Branch Railway Company.

(See Annual Report of 1893-94.)

Chignecto Marine Transport Company.

(See Aunual Report for 1894-95.)

Coast Railway Company of Nova Scotia.

(See No. 403.)

This company was incorporated by the Provincial Act of Nova Scotia, 56 Vic., chap. 154 (1893), to build a line of railway from Yarmouth to Lockeport; a subsequent Act, 59 Vic., chap. 103 (1896), extending its powers.

By the Dominion Subsidy Act, 60-61 Vic., chap. 4 (1897), the grant of a subsidy to this company for 61 miles of their railway from Yarmouth to Port Clyde was authorized, the amount being $3,200 a mile, with an addition of 50 per cent on the cost in excess of $15,000 a mile, the whole subsidy not to exceed $6,400 a mile.

The company were admitted to contract on August 26, 1897, the road to be completed by September 1, 1899.

During the year 1897-98 they were paid the sum of $90,400. No further payments have been made during the past fiscal year.

Cobourg, Northumberland and Pacific Railway Company.

(See Annual Report for 1900-01.)

Columbia and Kootenay Railway and Navigation Company.

(*Leased to the Canadian Pacific Railway Company.*)

(See Annual Report for 1891-92.)

Cornwallis Valley Railway Company.
(See Annual Report for 1891-92.)

Cumberland Railway and Coal Company.
(See Annual Report for 1894-95.)

Dominion Atlantic Railway Company.
(See Western Counties Railway Company.)

Dominion Eastern Railway Company.
(See Annual Report for 1900-01.)

Dominion Lime Company.
(See Annual Report for 1888-89.)

Dominion Coal Company.
(See Annual Report for 1895-96.)

Drummond County Railway Company.
(See Annual Report of 1900-01.)

East Richelieu Valley Railway Company.
(See Annual Report of 1888-89.)

Elgin, Petitcodiac and Havelock Railway Company.
(See Annual Reports for 1885-86 and 1890-91.)

Erie and Huron Railway Company.
(See Annual Reports for 1886-87.)

Esquimalt and Nanaimo Railway Company.
(See Annual Reports for 1886-87.)

Fredericton and St. Mary's Bridge Company.
(See Annual Report for 1888-89.)

Grand Trunk, Georgian Bay and Lake Erie Railway Company.
(See Annual Report for 1893-94.)

Grand Trunk Railway Company.
(See Annual Report of 1900-01.)

Great Eastern Railway Company.
(See Annual Report for 1896-97.)

Great Northern Railway of Canada (formerly the Great Northern Railway Company).
(Name changed by the Act 62-63 Vic., ch. 67, 1899.)
(See Nos. 33, 37, 72, 79, 154, 215, 231, 308, 309, 346, 371, 380, 405, 407, 413, 416.)

By the Act 47 Vic. ch. 8 (1884), a subsidy not exceeding $32,000 was granted to this company for the construction of a line from St. Jérôme to New Glasgow, Que., the estimated length being ten miles.

Under the authority of an Order in Council of February 3, 1885, a contract for the work was entered into with the company on the 14th of that month, the road to be completed by July 1, 1885.

The line was duly completed and inspected. Under an Order in Council of March 2, 1885, payment was made therefor, namely, 7·84 miles, $25,088.

By the Act 49 Vic., ch. 10 (1886), a subsidy not exceeding $57,600 was authorized for a line from New Glasgow to Montcalm, a distance of about 18 miles. The Great Northern Railway Company having applied for it, it was granted to them by an Order in Council of July 18, 1887, which also approved of the location. The contract was made on August 19, 1887, the road to be completed by August 1, 1890.

By the Act 49 Vic., ch. 10, a subsidy not exceeding $22,400 was granted for a line from St. Andrews to Lachute, Que., 7 miles. For this subsidy the above-named company applied, but no contract was made. The same subsidy was again voted by the Act of 1889, 52 Vic., ch. 3, and under date October 8, 1890, a contract was entered into with them for the work, calling for completion by August 1, 1891. The road was built and allowed to be opened for public traffic in January, 1892.

By the Act 53 Vic., ch. 2 (1890), the grant of a subsidy was authorized, limited to $48,000, for a line from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, 15 miles.

By the Act 54-55 Vic., ch. 2 (1891), the unpaid balance $28,100 of the subsidy granted in 1886, was revoted.

By the Act 56 Vic., ch. 8 (1893), the unpaid balance, $25,600 of the subsidy granted in 1891, was revoted, and a new contract for this work was entered into with the company on June 16, 1894.

Also, by the same Act, the subsidy, not exceeding $48,000, granted to the company for 15 miles of their railway from Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, by 53 Vic., ch. 2, was revoted, and a contract for this work was entered into with them on June 16, 1894.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), the grant to this company of a subsidy, limited to $96,000, was authorized for 30 miles of railway from a junction with the Lower Laurentian Railway near St. Tite, westwards, in lieu of a subsidy previously granted to the Maskinongé and Nipissing Railway Company. A contract was entered into with the company for this work on September 16, 1895, the railway to be completed by November 30, 1896.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), payment was authorized of unpaid balances for 67 miles of railway, between Montcalm and the junction with the Lower Laurentian Railway near St. Tite, not exceeding $182,400; also a subsidy of 15 per cent, not exceeding $52,500, of the cost of a bridge over the River Ottawa at Hawkes-

bury. Also, for 9 miles shortage in distance between Montcalm and St. Tite; also, for 35 miles from St. Jérôme to Hawkesbury; the last two being subsidies of $3,200 per mile with 50 per cent of expenditure in excess of $15,000 per mile, the total not to exceed $6,400 per mile. Under this Act, an agreement was entered into with the company on September 5, 1898, for the construction of the 67 miles and the 9 miles mentioned, and an agreement under the same Act was made with them on October 12, 1899, for the construction of the 35 miles from St. Jérôme to Hawkesbury.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), the grant of a subsidy for 53½ miles of the company's railway between Montcalm and St. Tite Junction was authorized; also for a branch from their main line to Shawenegan Falls, 6½ miles, such subsidies being of $3,200 a mile with an addition of 50 per cent of cost in excess of $15,000 a mile, the whole subsidy not to exceed $6,400 a mile.

The company were admitted to contract for the above by two separate agreements, that for the branch being dated July 4, 1900, and that for the railway between Montcalm and St. Tite Junction on the 26th of that month.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), authority was given for the grant of aid to this company towards the construction of three bridges to the extent of 15 per cent of the amount expended; such subsidies being limited as follows:—

For the bridge across	River	St. Maurice	$16,425
"	"	du Loup	15,000
"	"	Maskinongé	15,000

Contracts in respect of all three bridges were made with the company under date December 21, 1899.

Under date February 28, 1900, a subsidy contract was made with the company for the construction of a bridge across the River Ottawa at Hawkesbury, the subsidy, limited to $52,500, being that authorized by the Act 60-61 Vic., ch. 4 (1897). The line as subsidized and either built or under construction extends from Hawkesbury to St. Tite Junction with the Lower Laurentian Railway, a distance of 225 miles, passing through Grenville, Lachute, St. Jérôme, New Glasgow, Montcalm, Joliette and St. Boniface. The section between St. Jérôme and Montcalm, 27·84 miles, and 20 miles westward from St. Tite to St. Boniface, on all of which the subsidy was $3,200 a mile, making a total of $153,088, have been built and paid for; also a short line, 6·75 miles from Lachute to St. Andrews, the subsidy for which amounted to $21,600.

During the year 1900-01 a subsidy was paid to the extent of $345,323.11, making the total payments to the company $520,011.11. No further payments have been made up to June 30, 1902.

Gulf Shore Railway Company of New Brunswick.

(See Annual Report for 1899-1900.)

Guelph Junction Railway Company.

(See Annual Report of 1888-89.)

Harvey Branch Railway Company.

(See Annual Report of 1889-90.)

Hereford Railway Company (formerly Hereford Branch Railway Company).

(See Annual Report of 1891-92.)

International Railway Company.

(See Annual Reports of 1887-88 and 1889-90.)

Inverness and Richmond Railway Company.

(See Nos. 208, 357 and 400.)

This company was incorporated by the Act of the province of Nova Scotia, 50 Vic., ch. 60 (1887), with powers for the construction of a line of railway between Hawkesbury and a point in the district of Margaree. By the Act of 1888, ch. 79, the location of the line was authorized as from Port Hawkesbury, through Port Hastings, Judique, Port Hood, Mabou and Margaree, to a point at Eastern Harbour, Cheticamp.

By the Subsidy Act, 57-58 Vic., ch. 4 (1894), assistance to the extent of $80,000 was authorized for 25 miles of railway from Port Hawkesbury towards Cheticamp, and the above company was admitted to contract for the work on November 23, 1894.

By the Subsidy Act of 1897, 60-61 Vic., ch. 4, in lieu of the subsidy granted in 1894, a subsidy of $3,200 a mile with an addition of 50 per cent on expenditure in excess of $15,000 a mile, such subsidy in all not to exceed $6,400 a mile, was authorized for a railway from Port Hawkesbury to Port Hood and Broad Cove, 53 miles, and the company was admitted to contract thereunder on April 29, 1898.

During the past fiscal year the sum of $86,800 has been paid, making the total subsidy paid $219,600 up to June 30, 1902.

Irondale, Bancroft and Ottawa Railway Company.

(See Annual Report for 1900-01.)

Joggins Railway Company.

(See Annual Report for 1891-92.)

Kingston, Napanee and Western Railway Company.

(See Napanee, Tamworth and Quebec Railway.)

Kingston and Pembroke Railway Company.

(See Annual Report for 1884-85.)

Kootenay and Arrowhead Railway Company.

(See No. 543.)

This company was incorporated by the Act 1 Ed. VII., chap. 70 (1901), with powers to construct a railway from a point at or near Lardo, near the head of Kootenay Lake, to a point at or near Duncan; thence north-westerly to Arrowhead on Arrow Lake, B.C., together with such branch lines, none to exceed 30 miles, as may

be authorized by the Governor in Council. The company were empowered to lease or sell their works to certain companies named, including the Canadian Pacific Railway Company.

By the Subsidy Act of 1901, chap. 7, item 28, the grant of a subsidy of $3,200 a mile, with an addition of 50 per cent on cost in excess of $15,000 a mile, limited to $6,400 in all, was authorized for a railway from Duncan Lake towards Lardo or Arrow Lake, B.C., or from Lardo to Arrow Lake, not exceeding 30 miles.

The company having applied for this subsidy, a contract was entered into with them for the work on August 26, 1901, under authority of orders in council of June 8 and July 6, 1901; the time for completion being fixed as August 1, 1903. The road was built from Lardo to Trout Lake, 33 miles, and was inspected in June, 1902, with a view to its being opened for public traffic.

No portion of the subsidy had been paid up to the close of the fiscal year, June 30, 1902.

Lake Erie and Detroit River Railway Company.

Formerly 'the Lake Erie, Essex and Detroit Railway Company.' Name changed by Dominion Act, 54-55 Vic., ch. 88 (1891).

(See Annual Reports for 1889-90 and 1893-94.)

(See No. 463.)

Up to the end of the fiscal year 1893-94, this company had received subsidies to the extent of $338,731.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), the grant of a subsidy to this company was authorized, namely, for a line from Ridgetown, Ont., to St. Thomas, 44 miles, the subsidy to be payable only in the event of adequate running rights over the Canada Southern Railway being granted them on terms to be approved by the Railway Committee of the Privy Council.

The matter came before the Railway Committee, who decided that such rights could not be assured on terms that they could approve, and advised that a subsidy contract should be granted to the company.

On June 23, 1900, the company were admitted to contract accordingly.

During the past fiscal year subsidy to the extent of $137,120 has been paid, making the total subsidy payments $475,851 up to June 30, 1902.

L'Assomption Railway Company.

(See Annual Report of 1886-7.)

Leamington and St. Clair Railway Company.

(See Annual Report of 1888-9.)

Lake Temiscamingue Colonization Railway Company.

(See Annual Report of 1896-7.)

Laurentian Railway Company.

(See St. Lawrence, Lower Laurentian and Saguenay Railway Company.)

Lotbinière and Megantic Railway Company.

(See Annual Report of 1896-7.)

Massawippi Valley Railway Company.

(See Annual Report for 1900-1.)

Middleton and Victoria Beach Railway Company.

(See Nos. 503 and 536.)

This company was incorporated by the statute of Nova Scotia, 60 Vic., ch. 82 (1897), as 'the Granville and Victoria Beach Railway and Development Company,' with powers to build a line of railway from some point on the Dominion and Atlantic Railway at or near Bridgetown, through Granville, to some point at or near Victoria Beach on the Annapolis Basin, with approved branches, &c. This Act was revived by the Act of 1899, ch. 129. It was further revived by the Act of 1901, ch. 160, and extended for six years; the name being changed to the 'Middleton and Victoria Beach Company.'

By the Railway Subsidy Act of Canada, 63-64 Vic., ch. 8, item 28, the grant of a subsidy of $3,200 a mile, with a further subsidy of 50 per cent on cost in excess of $15,000 a mile, not exceeding in all $6,400 a mile, was authorized for 30 miles of a railway from Bridgetown to Victoria Beach, Nova Scotia.

The above company having applied, they were admitted to contract for the work on May 5, 1902, under authority of an order in council of April 1, the railway to be completed by December 1, 1903.

No portion of the subsidy has been paid up to June 30, 1902.

By the Subsidy Act of 1901, chap. 7, item 21, a similar subsidy was authorized to be granted for an extension from Bridgetown to Middleton, not exceeding 11 miles, and the company having applied for it, a contract was made with them, accordingly, on May 5, 1902, under authority of an order in council of April 1, the work to be completed by December 1, 1903.

No portion of the subsidy has been paid up to June 30, 1902.

Midland Railway Company.

(See Nos. 336, 421, 427.)

This company was incorporated by the Act of the province of Nova Scotia, 59 Vic., ch. 85 (1896), with power to build a railway from Windsor to a point at or near Maitland, thence, via Clifton, to a point between Truro and Stewiacke, on the Intercolonial; thence to Eastville; with extensions and branches to coal and iron fields, and shipping ports.

By the Dominion Subsidy Act, 57-58 Vic., ch. 4 (1894), authority was given for the grant of a subsidy of $3,200 per mile for 90 miles of railway from Newport or

Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville, through the valley of Musquodoboit river, towards a point on the Dartmouth branch of the Intercolonial, in lieu of a subsidy authorized in 1892; also for a railway bridge over the River Shubenacadie, a subsidy of 15 per cent on the value of the structure; the total of the subsidies not to exceed $300,000.

The Midland Railway Company having applied, were admitted to contract for these works on July 30, 1896.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), in lieu of the foregoing, there was authorized a grant of $3,200 per mile, with a further grant of 50 per cent on cost in excess of $15,000 per mile, up to a limit of $6,400 per mile, for a railway from Windsor, N.S., to Truro via Clifton; and the Midland Railway Company having applied for it they were admitted to contract on December 7, 1899.

During the fiscal year 1900-1, subsidy was paid to the extent of $170,264. No further payments have been made up to June 30, 1902.

Montfort Colonization Railway Company.

(See Annual Report for 1900-1.)

Montreal and Champlain Junction Railway Company.

(See Annual Report for 1892-93.)

Montreal and Lake Maskinongé Railway Company.

(See Annual Report for 1890-91.)

Montreal and Sorel Railway Company.

(See Annual Report for 1892-93.)

Montreal and Western Railway Company.

(See Annual Report for 1893-94.)

Montreal and Ottawa Railway Company.

(*Formerly the* **Vaudreuil and Prescott Railway Company.** *Name changed by 53 Vic., ch. 58.*)

(See Annual Report for 1898-99.)

Montreal and Province Line Railway Company.

(See No. 518.)

This company was incorporated by the Act of Canada, 59 Vic., ch. 26 (1896), which vested it with the franchise, railway and property of the Montreal, Portland and Boston Railway Company, which had been sold by the sheriff, under an execution. The said Act empowered the company to build a railway from St. Lambert by way of Chambly, Farnham, and Frelighsburg, to the Province Line, with an extension to the River St. Lawrence at the town of Longueuil, and a branch from St. Marie to St. Cesaire.

By the Railway Subsidy Act of 1901, chap. 7, item 3, a subsidy to this company (in lieu of one granted the previous year) was authorized for 19 miles of railway from Farnham to Frelighsburg, $3,200 a mile, with an addition of 50 per cent on expenditure in excess of $15,000 a mile; the whole not exceeding $6,400 a mile.

A contract was made with the company, accordingly, on August 2, 1901, under authority of an order in council of June 29; the time for completion being fixed as September, 1901.

The railway between Farnham and Frelighsburg, 18·3 miles, was completed according to contract during the past fiscal year, and the subsidy, $58,560, was paid.

Napanee, Tamworth and Quebec Railway Company.

(*Name changed to the* **Kingston, Napanee and Western Railway Company** *by the Act 53 Vic., ch. 62.*)

(See Annual Report for 1895-96.)

Nakusp and Slocan Railway Company.

(See Annual Report for 1894-95.)

New Brunswick and Prince Edward Island Railway Company.

(See Annual Report for 1888-89.)

New Glasgow Iron, Coal and Railway Company.

(See Annual Report of 1895-96.)

Northern and Pacific Junction Railway Company.

(See Annual Report of 1890-91.)

Northern and Western Railway Company.

(See Annual Report of 1889-90.)

(Also under the head 'Canada Eastern Railway' in Annual Report of 1894-95.)

Nova Scotia Central Railway Company.

(See Annual Report for 1898-99.)

Nova Scotia Southern Railway Company.

(See Annual Report for 1896-97.)

(See No. 431 and 432.)

No payments were made to this company under the subsidies previously granted, which lapsed; and in 1899, by the Subsidy Act of that year, 62-63 Vic., ch. 7, the grants of the following were authorized, viz.: For a railway from a point on the Central Railway in the County of Lunenburg, N.S., to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles; also for a railway from Indian Gardens, Queen's County, N.S., to Shelburne, 35 miles. In each case the subsidy was $3,200 a mile, with an addition of 50 per cent of cost in excess of $15,000 a mile, but not exceeding in all $6,400 a mile.

The above company having applied, were admitted to contract under both subsidies, the two agreements being dated January 27, 1900.

No payments have been made up to June 30, 1902.

Ontario and Pacific Railway Company.

(*Name changed to* **Ottawa and New York Railway Company,** *by 60-61 Vic., ch. 57 1897.*)

(See Annual Report for 1900-01.)

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), in lieu of the subsidy voted in 1892, a subsidy was authorized of $3,200 a mile, for 53·87 miles from Cornwall to Ottawa, with a further subsidy for expenditure in excess of $15,000 a mile, to an extent of 50 per cent of such expenditure, the total subsidies not to exceed $6,400 per mile.

The company were admitted to contract for the above on December 4, 1897.

At the close of the year 1898-99 they had been paid $172,384.

By the Subsidy Act, 63-64 Vic., ch. 8 (1900), the grant of aid to the extent of $90,000 was authorized for the company's bridge over the River St. Lawrence at Cornwall, and on October 10, 1900, they were admitted to contract for the work; for which, being completed, they have been paid during the past fiscal year the said sum of $90,000, making the total payments to this company, $262,384, up to June 30, 1902.

Ontario and Quebec Railway Company.

(See West Ontario Pacific Railway Company, and Annual Report for 1891-92.)

Ontario and Rainy River Railway Company.

(*Amalgamated with and under the name of the* **Canadian Northern Railway Company** *under the Act 62-63 Vic., ch. 80.*)

(See Nos. 390, 433, 444 and 466.)

This company, incorporated by the Ontario Act, 49 Vic., ch. 75, with powers to construct a railway from the town of Port Arthur to Rainy River and certain branches, was declared to be a work for the general advantage of Canada by the Dominion Act, 54-55 Vic., ch. 82 (1891), which also extended the time for completion to August, 1898, and ratified agreements made by the company for running powers over the line of the Port Arthur, Duluth and Western Railway Company; it further gave powers for the construction of a bridge across Rainy river. By the Act 61 Vic., ch. 81, the company were empowered to construct their railway either from Port Arthur or from a point on the Port Arthur, Duluth and Western Railway to a point on the boundary between the provinces of Ontario and Manitoba, and the time for completion of their works was extended.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), a subsidy to this company was authorized towards the construction of 80 miles of their railway from the Port Arthur, Duluth and Western Railway to Rainy lake, namely, $3,200 a mile, with an addition of 50 per cent, limited to $3,200 a mile, on the cost in excess of $15,000 a mile. This subsidy was definitely increased to $6,400 a mile by the Subsidy Act, 62-63 Vic., ch. 7 (1899).

The company were admitted to contract under these two subsidies by agreements dated July 29, 1899, and April 21, 1900, respectively.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), authority was given for the grant to this company of a subsidy of $6,400 a mile, for 140 miles of railway from a point 80 miles west of Stanley Station, on the Port Arthur, Duluth and Western Railway, to Fort Frances. The company were admitted to contract thereunder on February 14, 1900.

By the same Act the grant of a subsidy was authorized for 70 miles of railway from Fort Frances to or near the mouth of Rainy river. This company applied and were admitted to contract thereunder on February 14, 1900. By a special covenant in this contract they waived claim to any subsidy for this 70 miles in excess of $3,200 a mile.

Under authority of the Act 62-63 Vic., ch. 80 (1899), the company was amalgamated with, and under the name of, the Canadian Northern Railway Company, the agreement in this regard being approved by an order in council of May 4, 1900. The Canadian Northern Railway Company was formed by the amalgamation of the Winnipeg Great Northern Railway Company and the Lake Manitoba Railway and Canal Company under the Act 61 Vic., ch. 70 (1898), the agreement for that purpose being approved by an order in council of January 13, 1899. With the same company there is also amalgamated the Manitoba and South Eastern Railway Company under the Act 62-63 Vic., ch. 75 (1899), the agreement to that effect being approved by an order in council of May 2, 1900. The above railways are comprised in the Canadian Northern Railway system and under the name of that company.

During the past fiscal year payments of subsidies have been made to the extent of $939,891, making the total amount paid up to June 30, 1902, $1,477, 491.

Ontario, Belmont and Northern Railway Company.

(See Annual Report for 1896-97.)

Orford Mountain Railway Company.

(See Annual Reports for 1893-94 and 1894-95.)

Ottawa and New York Railway Company.

(See Ontario and Pacific Railway Company.)

Ottawa, Arnprior and Parry Sound Railway Company.

(*Now the* **Canada Atlantic Railway Company,** *by amalgamation, under the Act 62-63 Vic., ch. 81, 1899.*)

(See Annual Report for 1898-99.)

Ottawa and Gatineau Valley Railway Company.

(*Name changed to the* **Ottawa and Gatineau Railway Company,** *by the Act 57-58 Vic., ch. 87, which consolidated and amended Acts relating to the company.*)

(*Name further changed to the* **Ottawa Northern and Western Railway Company,** *by the Act 1 Edw. VII., ch. 80.*)

(See Nos. 8, 26, 58, 151, 305, 349, 379, 409, 414, 492 and 453.)

By the Act 48-49 Vic., ch. 29 (1885), the grant of a subsidy to this company was authorized (in lieu of subsidies granted in previous year), namely, for a line of railway from Hull station towards the village of Le Désert, 62 miles, the amount being $320,000. The subsidy having lapsed, it was revoted by the Act 52 Vic., ch. 3 (1889).

Under authority of an order in council of July 10, 1889, a contract with the company for the work in question, 62 miles, was signed on August 19, 1889.

By the Subsidy Act, 56 Vic., ch. 2 (1893), the unpaid balance, $89,248, was revoted.

By the Subsidy Act, 57-58 Vic., ch. 6 (1894), authority was given for subsidizing, to the extent of $64,000, a further distance of 20 miles from the end of the 62 miles already subsidized, and a contract for the work was entered into with the company on October 7, 1895.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), in lieu of this subsidy, the said 20 miles was subsidized to the extent of $3,200 per mile, with a further subsidy of 50 per cent of the expenditure in excess of $15,000 a mile; the total subsidy not to exceed $6,400 a mile.

The company were admitted to contract under this subsidy on July 29, 1899.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), the unpaid balance, $35,872, of the vote of 1893 was revoted, and a contract was made with the company thereunder on July 29, 1899.

The total payments up to June 30, 1894, amounted to $284,128.

Under dates September 21, 1899, and November 26, 1900, contracts were entered into for the construction, under subsidy, of a bridge across the River Ottawa at Ottawa, being made with this company conjointly with the Pontiac Pacific Junction Railway Company. This bridge was completed, and payment of the full amount of the subsidy was made during the fiscal year 1900-01. (See Pontiac Pacific Junction Railway in Annual Report for 1900-01.)

By the Subsidy Act of 1899, chap. 7, item 39, the grant of aid to the extent of $3,200 a mile, with 50 per cent additional on excess cost over $15,000 a mile, was authorized for the company's railway through Hull, not exceeding 4 miles.

A contract for the work was made on February 15, 1902, and the road being built the subsidy for the actual distance, 1·28 miles, connecting the old Gatineau Valley Railway with the approach to the bridge across the River Ottawa, was paid during the fiscal year, namely, $8,192, making the total payments to this company on subsidy account, $292,320, up to June 30, 1902.

Ottawa Northern and Western Railway Company.

(See Ottawa and Gatineau Valley Railway Company, and Pontiac Pacific Junction Railway Company.)

Oshawa Railway and Navigation Company.

(*Name changed to the* **Oshawa Railway Company,** *by 54-55 Vic., ch. 91.*)

(See Annual Report for 1895-96.)

Parry Sound Colonization Railway Company,

(See Annual Report for 1895-96.)

Pembroke Southern Railway Company.

(See Annual Report for 1899-1900.)

Philipsburg Junction Railway and Quarry Company.

(See Annual Report for 1894-95.)

(*Now the* **Philipsburg Railway and Quarry Company.** *Name changed by 58 Vic., ch. 65, 1895.*)

(See Annual Report for 1899-1900.)

Port Arthur, Duluth and Western Railway Company.

(*Formerly the* **Thunder Bay Colonization Railway Company.**)

(See Annual Report for 1892-93.)

Pontiac and Renfrew Railway Company.

(See Annual Report for 1899-1900.)

Pontiac Pacific Junction Railway Company.

(See Annual Report for 1900-01.)

Quebec Bridge Company.

(See No. 467.)

This company was incorporated by the Dominion Act, 50-51 Vic., ch. 98 (1887), with powers to construct a railway bridge over the River St. Lawrence near Quebec, and to arrange the same for the use of foot passengers and vehicles, and to construct and operate lines of railway to connect with existing or future lines of railway on each side of the river.

By the Act 60-61 Vic., ch. 69 (1897), the powers of the company were revised, and the time for construction was extended to June 29, 1902.

By the Act 63-64 Vic., ch. 115 (1900), the time for completion was extended to June 14, 1905, and the company were further empowered to arrange for the placing of electric wires on the bridge and connecting railways, and for the passage of electric street railway or tram cars.

By the Railway Subsidy Act, 62-63 Vic., ch. 7 (1899), the grant of a subsidy to this company of $1,000,000 was authorized for a railway bridge over the River St. Lawrence at Chaudière basin, and by the Act of 1900, ch. 8, clause 10, it was made applicable, one-third to the substructure and approaches, and two-thirds to the superstructure.

On November 12, 1900, the company were admitted to contract for this subsidy work.

The site and plans of the bridge were approved by the Railway Committee of the Privy Council, and by an order in council dated May 16, 1898.

The structure is to be a cantilever bridge, composed of two approach spans of 220 feet each, two anchor spans of 500 feet each, and a centre span of 1,800 feet from centre to centre of the piers. The under side of the bridge will give a height of 150 feet above high water. The pneumatic system is adopted in the construction of the piers. When completed, it will comprise a double track railroad, two lines for electric tramways, and two ordinary roads for vehicles and foot passengers.

During the past fiscal year subsidy to the extent of $167,430 was paid, making a total of $242,000 up to June 30, 1902.

Quebec Central Railway Company.

(See Annual Report of 1895-96.)

Quebec and Lake St. John Railway Company.

(See Annual Report of 1895-96.)

Quebec, Montmorency and Charlevoix Railway Company.

(See Annual Report for 1894-95.)

Red Deer Valley Railway and Coal Company.

(See Land Subsidies No. 26.)

This company was incorporated by the Act 52 Vic., chap. 52 (1889), with powers to build a railway from a point near the town of Calgary, in the district of Alberta, N.W.T., in a north-easterly direction to a point on Red Deer river in Township 32, Range 21 west of the 4th principal meridian; also from, at or near Cheadle station, on the Canadian Pacific Railway, in a northerly direction to a point of junction with the line from Calgary, in or near Township 26, Range 25, west of the 4th principal meridian, together with certain branches. By the Company's Act of 1897, chap. 60, time was extended, and they were permitted to build from a point on the Calgary and Edmonton Railway in place of from Cheadle. By their Act of 1900, chap. 77, the company were allowed till January 1, 1902, to build the first 50 miles from Calgary, and to July 1, 1903, to complete their railway, and were empowered, on such completion, to build an extension from Red Deer river to the River Saskatchewan, at a point between Fort Pitt and Battleford; this extension to be commenced within two, and completed within seven, years from the date of the completion of the railway to Red Deer river in Township 32, Range 21, west of the 4th principal meridian.

By the Land Subsidy Act of 1891, chap. 9, a subsidy of 6,400 acres of land had been authorized to be granted to this company for a railway from the town of Calgary to a point in or near Township 29, Range 23, west of the 4th meridian, a distance of about 55 miles, and a contract was made with them on June 17, 1893, accordingly; the work to be completed by November 1, 1894.

By an order in council, dated June 29, 1901, authority was given for admission of the company to a new contract under this subsidy; and such contract was entered into on July 30, 1901; the 55 miles in question to be completed by July 1, 1903. The same order also approved the location of the road, namely, from a point on the Calgary and Edmonton Railway to the Kneehill mines.

Restigouche and Western Railway Company.

(See No. 384.)

This company was incorporated by the Act of the province of New Brunswick, 60 Vic., ch. 82 (1897), with powers to construct a railway from Campbellton, to a point on the River Saint John between Grand Falls and Edmundston.

By the Subsidy Act 60-61 Vic., ch. 4 (1897), there was authorized a subsidy for a railway from Campbellton, on the I.C.R., towards Grand Falls, N.B., 20 miles, $3,200 a mile, with an addition of 50 per cent on the cost in excess of $15,000 a mile; the whole not to exceed $6,400 a mile. This was in lieu of a previous subsidy to a specified company.

The Restigouche and Western Railway Company having applied, were admitted to contract for the work on December 24, 1897. The total payment up to June 30, 1900, amounted to $46,930; no further payment has been made up to June 30, 1902.

Schomberg and Aurora Railway Company.

(See No. 386.)

This company was incorporated by the Dominion Act, 59 Vic., ch. 34 (1896), with powers to build a line of railway from a point on the Grand Trunk Railway between King and Newmarket to the village of Schomberg.

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), the grant of a subsidy of $3,200 a mile for 15 miles between the points named above, with addition of 50 per cent of the cost in excess of $15,000 a mile, but not exceeding in all $6,400 a mile was authorized.

A subsidy agreement was entered into with the company accordingly on July 29, 1899.

By the Subsidy Act 1 Ed. VII., chap. 7, item 10 (1901), this subsidy was, in effect, revoted, and a new contract was made with this company on February 3, 1902; the road to be completed by October 31, 1903.

No payments have been made up to June 30, 1902.

Shuswap and Okanagan Railway Company.

(See Annual Report of 1894-95.)

South Norfolk Railway Company.

(See Annual Report of 1888-89.)

South Shore Railway Company.

(See Annual Report of 1896-97.)

South Shore Railway Company, Quebec.

(See Nos. 441, 468, 469 and 513.)

This company was incorporated by the Quebec Act of 1894, ch. 72, and the undertaking was declared to be a work for the general advantage of Canada by the Dominion Act, 60 Vic., ch. 10 (1896), which authorized the construction of a line of railway from

a point in the town of Lévis to a point on the Canada Atlantic Railway at or near Valleyfield.

By the Subsidy Act, 62-63 Vic., ch. 7 (1899), the grant of a subsidy to this company for 82 miles of railway from Sorel Junction to Lotbinière was authorized, $3,200 a mile, with an addition of 50 per cent of cost in excess of $15,000 a mile, but not exceeding in the whole $6,400 a mile. The company were admitted to contract for this work on May 9, 1900.

By the same Act the grant of a subsidy was authorized towards the construction of a bridge over the River Richelieu at Sorel, not exceeding $35,000. The company were admitted to contract for this work on December 23, 1899.

By the same Act the grant of a subsidy to this company was authorized towards the renewal of the railway bridge over the River Yamaska at Yamaska, the amount being $50,000. They were admitted to contract for the work on May 9, 1900.

By the Subsidy Act, 63-64 Vic., ch. 8 (1900), the grant of subsidy to the extent of $50,000 was authorized for a railway bridge over the River St. Francis, such bridge to be free to foot passengers and vehicles. A contract was entered into with the company for the work on June 29, 1901.

The total of payments up to June 30, 1901, was $119,290.19. This includes the sum of $16,164.63 for completing the Montreal and Sorel Railway (see report of 1899-1900.) No further payments have been made up to June 30, 1902.

St. Catharines and Niagara Central Railway Company.

(See Annual Report for 1895-96.)

St. Clair Frontier Tunnel Company.

(See Annual Reports of 1890-91 and 1891-92.)

St. Gabriel de Brandon and Ste. Emélie de l'Energie Railway Company.

(See No. 381.)

By the Subsidy Act, 60-61 Vic., ch. 4 (1897), in lieu of a previous subsidy authorized in 1894, a subsidy of $3,200 a mile, with an addition, not exceeding $3,200 a mile, of 50 per cent of cost in excess of $15,000 a mile, was authorized to be granted to this company for 15 miles of railway from St. Gabriel to Ste. Emélie de l'Energie, and for 5 miles from a point on the main line to St. Jean de Matha.

A subsidy agreement for this work was entered into with the company on July 29, 1899.

No portion of the subsidy has been paid up to June 30, 1902.

St. John Valley and Rivière du Loup Railway Company.

(See Annual Report for 1893-94.)

St. Stephen and Milltown Railway Company.

(See Annual Reports for 1895-96 and 1900-01.)

Stewiacke Valley and Lansdowne Railway Company.

(See Annual Report for 1895-96.)

St. Lawrence and Adirondack Railway Company.

(See Annual Reports for 1893-94 and 1900-01.)

St. Lawrence, Lower Laurentian and Saguenay Railway Company.

(*Name changed to* **Laurentian Railway Company** *by Provincial Act 51-52 Vic., ch. 108.*)

(See Annual Report for 1891-92.)

St. Louis and Richibucto Railway Company.

(See Annual Report for 1884-85.)

St. Mary's River Railway Company.

(See Annual Report of 1900-01.)

Témiscouata Railway Company—Rivière du Loup to Edmundston.

(See Annual Report for 1892-93.)

Thousand Islands Railway Company.

(See Annual Report for 1895-96.)

(See No. 486.)

By the Subsidy Act 63-64 Vic., ch. 8 (1900), a further subsidy was authorized for 2 miles of an extension from the present northerly terminus, $3,200 a mile, with an addition of 50 per cent on cost in excess of $15,000 a mile, not exceeding in all $6,400 a mile.

A contract was made with the company accordingly on March 15, 1901. During the past fiscal year the subsidy applicable, $5,440, was paid, making the total $29,840.

Tilsonburg, Lake Erie and Pacific Railway Company.

(See Annual Report for 1895-96.)

(No. 387.)

A further subsidy to this company was authorized by the Act 60-61 Vic., ch. 4 (1897), namely, for 3·50 miles from the then terminus, through Tilsonburg to the Michigan Central Railway, $3,200 a mile, with an addition of 50 per cent of the cost in excess of $15,000 a mile, the whole not to exceed $6,400 a mile.

Under date, December 4, 1897, the company were admitted to contract. During the fiscal year 1898-99 the sum of $10,912 was paid, and in the fiscal year 1900-01 the sum of $7,159.48 was paid from this subsidy, making, with their previous subsidy of $51,200, paid in 1895-96, a total of $69,271.48.

By the Subsidy Act, 62-63 Vic., chap. 7, item 26 (1899), a subsidy of $3,200 per mile, with a further subsidy of 50 per cent on cost in excess of $15,000 a mile, not exceeding in all $6,400 a mile, was authorized for an extension from Tilsonburg to Ingersoll or Woodstock, not exceeding 28 miles.

Under authority of an order in council of September 11, 1901, a contract was made with the company, accordingly, on October 15, 1901; the road to be completed by October 1, 1902.

No subsidy payments have been made during the past fiscal year.

Tobique Valley Railway Company.

(See Annual Report for 1893-94.)

Toronto, Grey and Bruce Railway Company.

(See Annual Report for 1887-88.)

United Counties Railway Company.

(See Annual Report for 1900-01.)

Vaudreuil and Prescott Railway Company.

(See *Montreal and Ottawa Railway Company.*)

Waterloo Junction Railway Company.

(See Annual Report for 1891-92.)

Western Counties Railway Company.

(*Name changed to* **The Yarmouth and Annapolis Railway Company** *by 56 Vic., ch. 63.*)

(*Name further changed to* **The Dominion Atlantic Railway Company** *by 57-58 Vic., ch. 69.*)

(See Annual Report for 1894-95.)

West Ontario Pacific Railway Company.

(*Leased to Ontario and Quebec Railway Company—C. P. R.*)

(See Annual Report of 1890-91.)

Woodstock and Centreville Railway Company.

(See Annual Report for 1895-96.)

Yarmouth and Annapolis Railway Company.

(See *Western Counties Railway Company.*)

York and Carleton Railway Company.

(See No. 423.)

This company was incorporated by the Act of New Brunswick, 1887, ch. 44.

By the Subsidy Act 62-63 Vic., ch. 7 (1899), the grant of a subsidy of $3,200 a mile, with a further subsidy of 50 per cent on the cost in excess of $15,000 a mile, the total subsidy not to exceed $6,400 a mile, was authorized for 6 miles of railway from Cross Creek Station, on the Canada Eastern Railway, to Stanley village, N.B., for which this company applied.

A subsidy agreement thereunder was entered into with them on November 23, 1899.

During the past fiscal year, the road having been completed, the subsidy applicable, $18,336, was paid.

LAND SUBSIDIES.

A number of companies have been aided by subsidies in land, duly authorized by Parliament and granted by the Department of the Interior, to whose report reference must be had for information as to their position. Certain details in respect of these roads will, however, be found in the annual report of this department for 1895-96. (See also the Red Deer Valley Railway and Coal Company, above.)

CANALS.

The total expenditure charged to Capital Account on the original construction and the enlargement of the several canals of the Dominion, up to June 30, 1902, was $83,519,233.86. A further sum of $18,965,441.90 has been expended on the repairs, maintenance and operation of these works, making a total of $102,484,545.76. The total revenue derived, including tolls, and rentals of lands and water powers, amounted to $13,017,756.69. (See the Accountant's statements, Part II., p. 28, 45 and 46.)

The total expenditure on canals for the fiscal year ended on June 30, 1902, was as follows:—

On construction and enlargement, a total of $2,114,689.88, and a further sum of $864,080.67 for repairs, renewals, operation, and revenue collection, making a total for the year of $2,978,770.55.

The total net revenue collected for the fiscal year was $300,413.68, a decrease compared with the net revenue of the previous year of $15,012.01. The net canal tolls amounted to $233,037.82, a decrease of $28,091.58. On July 1, 1901, the balance of rents unpaid was $70,760.32. The rents accrued during the year amounted to $62,899.36, and the rents received to $57,375.86, an increase of $2,489.04, leaving a balance of rents uncollected on June 30, 1902, amounting to $75,887.56.

The total expenditure on canal staff and maintenance, repairs and renewals amounted, for the year, to $864,080.67, an increase of $77,402.39, and the total net receipts amounting as above, to $300,413.68, the amount of expenditure in excess of receipts was $563,666.99.

The above figures relate to the fiscal year 1901-02, but very voluminous statistics relating to the canal traffic, and various commercial statistics for the *season of navigation* of the year 1901, will be found in Part V., 'Canal Statistics.'

The total traffic through the several canals of the Dominion for the season of 1901, amounted to 5,665,259 tons, an increase of 651,566 tons compared with the previous year. This includes 2,820,394 tons passing through Sault Ste. Marie Canal, which is free of toll.

The following features of the principal canal traffic during the season of 1901, will be of interest:—

On the Welland Canal, 620,209 tons of freight were moved, a decrease of 99,151 tons, of which 301,359 tons were agricultural products, a decrease of 78,299 tons, and 85,528 tons produce of the forest; of coal, 49,480 tons were carried. 513,804 tons passed eastward, and 106,405 westward; 604,950 tons were through freight, of which 501,935 tons passed eastward.

Of this through freight, Canadian vessels carried 290,533 tons, a decrease of 28,964 tons, and United States vessels 314,417 tons, a decrease of 54,643 tons.

The total freight passed eastward and westward through this canal from United States ports to United States ports was 274,019 tons, a decrease of 44,510 tons compared with the year 1900.

The quantity of grain passed down the Welland and the St. Lawrence canals to Montreal was 151,566 tons, a decrease of 93,095 tons compared with the previous year; of this, 17,387 tons were transhipped at Ogdensburg, as against 38,403 tons transhipped in 1900. The further quantity of 51,867 tons of grain passed down the St. Lawrence canals, only, to Montreal, making the total 203,433 tons.

The rate of toll on grain for passage through the Welland (giving free passage through the St. Lawrence canals), was 10c. a ton.

On the St. Lawrence canals, 1,208,296 tons of freight were moved, an increase of 93,125; of which 549,974 were eastbound through freight, and 35,411 tons westbound through freight; 583,938 tons were agricultural products, 468,755 tons merchandise, 402,923 tons coal, and 99,333 tons forest products.

Twenty-two cargoes of grain, aggregating 15,352 tons, were taken down direct to Montreal through the Welland and St. Lawrence canals, as against fifteen cargoes, aggregating 7,924 tons in 1900, and two cargoes, aggregating 558 tons in 1899.

On the Ottawa river canals, the total quantity of freight moved was 445,862 tons, an increase of 56,717, of which 434,343 tons were produce of the forest.

On the Chambly Canal, 359,798 tons were moved, an increase of 11,237, of which 196,668 tons were produce of the forest, and 84,949 tons coal.

On the Rideau Canal, 56,376 tons were carried, a decrease of 19,056; 21,771 tons being the product of the forest, and 17,679 tons coal.

On the St. Peter's Canal, 88,257 tons were carried, an increase of 14,441, of which 53,064 tons were merchandise, and 46,386 tons coal.

On the Murray Canal, 29,535 tons passed, an increase of 10,468, and 9,223 tons of this were the product of the forest.

On the Trent Valley Canal, 36,532 tons were moved, of which 35,573 tons were the product of the forest.

On the Sault Ste. Marie Canal, the total movement of freight was 2,820,394 tons, being an increase of 784,717 tons, carried in 4,204 vessels, the number of lockages being 2,910. Of wheat, 9,639,627 bushels, and of other grain, 2,709,425 bushels were carried; 1,245,243 barrels of flour, 1,596,549 tons of iron ore, 510,393 tons of coal, and 12,553,948

feet, board measure, of lumber; nearly all these items show a considerable increase. The total traffic at this point, accommodated by the two canals, the American and Canadian, amounted to 28,402,432 tons, an increase of 2,759,401 tons, carried in 20,041 vessels, an increase of 591. The total quantity of wheat carried was 52,856,731 bushels, an increase of 12,239,924, and of other grain 24,765,758 bushels, an increase of 8,326,550. Of lumber, the total was 1,073,433,948 feet, board measure, an increase of 167,905,142.

In connection with the question of canal versus railway transport of grain from the west, it may be noted that whereas grain and peas passed down to Montreal through the Welland and St. Lawrence canals to the extent of 151,566 tons, a decrease of 93,095 tons, compared with the previous year, the quantity carried to Montreal via the Canadian Pacific and Grand Trunk Railways amounted to 227,700 tons, a decrease of 1,924 tons. Over the route from Depot Harbour, on Georgian Bay, Lake Huron, via the Canada Atlantic Railway to Coteau Landing, at the head of the Soulanges Canal, thence by barge to Montreal, in the season of 1900, the total freight carried to Montreal was 319,865 tons, of which 303,259 tons were grain. In the season of 1901, 321,016 tons were carried, of which 291,834 tons were grain. Of the grain so carried in 1900, 126,963 tons were wheat, and 154,815 corn, and in 1901, 207,403 tons were wheat, and 71,459 tons corn.

The quantity of grain carried to tidewater on the New York State canals was 355,760 tons, an increase of 46,815 tons, while the quantity carried by the railways of the state to tidewater amounted to 4,630,479 tons, an increase of 234,038.

Of the total east and west-bound freight carried by the canals of the State of New York (the Erie, the Champlain, the Black River, the Cayuga and Seneca and the Oswego) and the competing railways (the New York Central and the Erie Railroad) respectively (amounting in 1901 to 65,640,837 tons—greater by 207,296 tons than in 1900), the proportion carried by the canals has fallen steadily from 68·9 per cent in 1859 and 47·0 per cent in 1869, to 6·8 per cent in 1898, 7·2 per cent in 1899, 5·2 in 1900, and 5·1 in 1901. These canals carried, in 1901, 3,420,613 tons, an increase of 74,672 tons.

The enlarged Erie Canal, between Buffalo and Albany, is 350½ miles long; comprises 72 locks, 110 by 18 feet, with a depth of 7 feet of water, accommodating, as a maximum, vessels of 240 tons burden. The original canal was completed in 1836, and the enlargement in 1862. The total cost of construction was $51,609,200.

By means of the enlarged Canadian canal systems and the intermediate waterways, a minimum depth of fourteen feet of water from Lake Superior to the head of ocean navigation at Montreal is afforded; the smallest locks being 270 feet in length and 45 feet in width, accommodating vessels 255 feet long and 44 feet beam. As an index to the carrying power of the new canal works, it may be observed that a typical vessel, the propellor *Aragon*, whose length is 247 feet and width 42·6 feet, has passed through the enlarged Welland Canal, drawing 14 feet of water and carrying 2,212 tons of corn.

The through route between Montreal and Port Arthur, on the west shore of Lake Superior, now open as a 14-foot navigation, comprises 73 miles of canal, with 48 locks, and 1,150 miles of river and lake waters, or a total of 1,223 miles. From Montreal to

Duluth, at the south-west of Lake Superior, the total distance is 1,357 miles, and to Chicago 1,286 miles. A summary of this route will be found in the Chief Engineer's report, Part I., and further details of the several works in the pages immediately following. At Port Arthur and at Fort William (about six miles south), the Canadian Pacific Railway gives communication to and from the west.

The approaches to the canals and the channels through the intermediate river reaches are well defined, and are lighted with gas buoys under the control of the Department of Marine and Fisheries, admitting of safe navigation, if in the hands of competent pilots, both by day and night. In the case of the Sault Ste. Marie, the Cornwall, the Soulanges, and the Lachine Canals, they are well lighted, throughout, by electricity, and at the beginning of the season the electrical operation of the Soulanges Canal works was inaugurated.

It has proved completely successful and expeditious; the passage through the whole canal and its five locks, 14 miles, requiring only 2 hours and 25 minutes.

An interesting technical description of the electrical apparatus in use will be found in the report of the Superintending Engineer (app. p. 147). Contracts have been made for electrical installation for operation purposes on the Cornwall and Lachine Canals. The Sault Ste. Marie lock has been operated by electricity from the date of its opening.

As suggestive of the awakened interest of Canadian enterprise in the problem of water communication from the Great Lakes to tide water at Montreal, the statement is made by the Superintending Engineer of the Soulanges Canal, in his report which appears in the appendices to the present volume, that there are now being built at various ports on the upper lakes, and under contract for delivery in 1903, ten steel freight steamers of full canal size. They are to be 255 feet in length over all, 241 feet keel, 41 feet beam, and 18 feet in depth, and to be fitted with triple expansion engines. It is estimated that they will carry 2,200 tons of cargo on a 14-feet draught.*

*Extract from 'The Blue Book of American Shipping,' 1901. (Marine Review Publishing Co., Cleveland, Ohio.)

'A venture of far reaching influence attempted on the great lakes is worthy of record. It is the opening of the all-water route from the great lakes to Europe, via the Canadian canals along the St. Lawrence river. As a matter of historical record it may be noted that although a few small craft made the passage from the lakes to European ports years ago, the first vessel to utilize these enlarged Canadian canals as a commercial highway between the great lakes and Europe was the British Steamer *Monkshaven*, when in October last it carried a cargo of steel from Conneaut, on Lake Erie, to Avonmouth, England. This vessel had been employed by the Clergue water power interests at Sault Ste. Marie and was returning to Great Britain for the winter when Mr. Carnegie seized the opportunity to send some steel abroad by that route. The vessel would have returned to England any how, but her trip constituted, nevertheless, the first use of the canal in a commercial sense. Since then the North Western Steamship Company, of Chicago, has opened a regular service on this route, and its four steamships, built at Chicago last winter, have each made a trip abroad. The dimensions of the locks of the Canadian canals are 270 feet length by 45 feet width. They permit a draught of 14 feet. The vessels of the North Western Steamship Company are 256 feet long over all, 42 feet beam and 26½ feet depth of hold, which is regarded as the regulation Canadian canal size. The company expresses itself as satisfied with the result of its enterprise. The importance of this water-way, however, must not be either magnified nor minimized. It occupies a definite field, though a limited one, owing to the restriction in size. The completion of the canals, however, has permitted the lake ship-builders to compete with the coast ship-builders for the construction of some types of vessels for coastwise trade. Twelve vessels suited to trans-Atlantic and seaboard trade, as well as lake service, were built on the lakes during the year ended with July, 1901, and the experiment of building, each in two parts, two steamers

The improvement works being carried on at Port Colborne, the Lake Erie entrance of the Welland Canal, comprise the deepening of the approach to the canal to 22 feet, and the construction of two docks, with piers, 200 feet wide, upon which grain elevators will be erected for the transference of grain to vessels adapted to the canal navigation, when required. In addition to the works undertaken by this department, a breakwater, about a mile in length, is being constructed across the entrance to the harbour by the Department of Public Works, who will also dredge out the area so contained; thus greatly increasing the accommodation, and ensuring safety at this important point.

The deepening of the approaches to the Sault Ste. Marie Canal is progressing. At the lower entrance the work has now been completed; a channel way, 315 feet wide and 21·5 feet deep (one foot below the mitre sill at the lower main gates), has been formed.

In June last, owing to an accident to the swing bridge crossing the American Canal, that canal was closed to traffic for five days. In the emergency, the whole of the Lake Superior traffic was passed, without mishap, through the Canadian canal, during that period.

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much larger than the canal locks is now being tried in Cleveland. These vessels will each be of about 7,000 tons capacity when put together at the seaboard, after being towed down the Canadian canals in sections.

'The year has been one of unexampled activity with the ship-builders of the great lakes, and they already have in hand enough orders to ensure continued work for nearly all the plants for another year. The vessels built during the year ended with July, and those now under order, have an aggregate value of $16,324,000. The combined capacity of the freight carriers in the list, some sixty-three of them, is 266,950 gross tons on 18 feet draught.'

Compiled from the same useful publication, are the following statistics of commerce through the two canals, the American and Canadian, at the Sault Ste. Marie, for the year 1900; statistics, which, in the absence of official data for precise calculation, are valuable as indicating the enormous growth and extent of traffic on the great lakes; the total estimate of which for the year 1900, is about 46,000,000 tons; at the Sault Ste. Marie, very full records have been kept for many years.

During the year 1870, the total number of passages through the American canal at that point (the Canadian canal not having then been built), was 1,828, of which 431 were of steamers; the total registered tonnage was 690,826. The total quantity of wheat carried was 49,900 bushels. Twenty years later, in 1900, two canals were available, one American and one Canadian. Through these, there were 19,452 passages of vessels, carrying 25,643,073 net tons of freight, including 40,489,302 bushels of wheat; the smallest quantity for six years, and 58,555 passengers. The total value of the freight was $267,041,959, and the total cost of transportation $24,953,315. The average distance to which freight was carried was 825·9 miles, making a total of 21,179,229,014 mile-tons; the cost of transport being 1·18 mills per ton per mile. The value of the American craft engaged in this traffic was $66,116,583, and of the Canadian craft $3,618,576. The proportion of freight carried by Canadian vessels was 3 per cent.

Elsewhere, a comparison is made of the relative cost of moving freight via the Sault Ste. Marie canals and on two leading trunk lines, the New York, Chicago and St. Louis, and the Lake Shore and Michigan Southern, for the past ten years, showing that during that period, on the lake route, the average cost per ton-mile has been 1·07 mills, and for the past five years only ·95 of a mill; less than a tenth of a cent. On the railways named (selected for purposes of this comparison, it is stated, on account of their low costs) the lowest rate per ton per mile reached during these ten years is 3·20 mills. It is observed, however, that the lake traffic is through traffic, with few commodities, all handled in large quantities and on long hauls, while the railroad tonnage is largely made up of local freight. The average rate on wheat per bushel by lake from Duluth to Buffalo in 1900, was 2 cents. As indicating the size of the modern lake freighter, as the dimensions of some of the largest steel steamers are given, showing twelve vessels, 474 feet long and over, and four vessels, 498 feet long. The largest individual cargoes carried were 8,339 net tons (2,000 lbs.) of iron ore, 7,532 net tons of grain, and 7,688 net tons of coal. The vessels on the northern lakes, owned in the United States number 3,167, aggregating a gross tonnage of 1,565,587; of these, 424 are steamers of 1,000 tons and over, aggregating 911,533 gross tons. The Canadian-owned vessels on the great lakes are few, and no exact statement as to their number is available.

The construction of the new works for the improvement and extension of the Trent Canal system is proceeding. When the present contracts are completed, a six feet navigation will be afforded from Lake Simcoe to Heely's Falls, a distance of about 160 miles, leaving the portion between Heely's Falls and Lake Ontario, and the portion from the head of Lake Simcoe to Georgian Bay, Lake Huron, still to be dealt with. The total distance between the Bay of Quinte, Lake Ontario and Georgian Bay is about 192 miles.

During the years 1899 and 1900, under special appropriations voted by Parliament, surveys were conducted on the Upper River Ottawa, with a view to ascertaining the feasibility and probable cost of constructing a canal system to give a navigation from Georgian Bay down that river to Montreal, a scheme proposed many years ago and lately revived by private parties with considerable energy. The results of these surveys will be found in a special report from the engineer in charge, Mr. H. A. F. Macleod, attached to an appendix to the annual report for the year 1900-01.

His conclusions are that the canal can be constructed at an estimated cost, for a 14 feet navigation of $23,898,000, and for a 20 feet navigation of $72,627,000. The distance from Georgian Bay to Montreal is set down at 430 miles.

In the report of the Chief Engineer, and in the reports of the superintending engineers, will be found full details as to the operation of the various canals, and as to the progress and position of the works of enlargement and construction now being carried on.

As being responsible for the efficient working of the department, and as very practically conscious of its needs and deficiencies, I desire to emphatically repeat here the observations with which I closed my last year's report:—

'In concluding this report, it is only proper that I should draw attention to the rapid growth of the country during the last few years; specially in the enormous increase in the area of its development, and the interest of its business operations, which involve important questions, directly and indirectly affecting the great transportation problems with which this department is concerned, and which it is called upon to deal with authoritatively. With this rapid growth, the inner, or departmental staff proper, has not kept pace, and I must strongly urge the necessity, which is very apparent, of its amplification and its adjustment to the conditions of the times, if the wide and ever-expanding field it is required to cover, is to be properly and comprehensively treated.

'In addition to the very voluminous correspondence with the general public, and its necessary record and filing, the supervision of the expenditure entailed by the government railway and canal works in operation and under construction, and the revenue derivable from them, the leasing of lands and water powers, the settlement of claims, the letting of contracts, and the preparation of (often very extended) returns, giving information required by the House of Commons and the Senate, there is also the inspection of completed portions of subsidized railways, and of all railways before opened to traffic; the inspection of railway bridge structures, with the examination of all their plans, required to be sent in for approval; inspection of railways subject to complaint of any kind; the examination for approval of railway by-laws, whether of tariff or otherwise, and the carrying out of varied and complicated duties entailed on the Railway Committee of the Privy Council; further, the compilation, analysis and printing

of extensive statistics relating to all Canadian railways, and of similar statistics relating to the traffic on the canals of the Dominion. In justice to the work to be done and to those who are required to perform it, I am compelled to state that the staff is inadequate.'

I have the honour to be, sir,

Your obedient servant,

COLLINGWOOD SCHREIBER,

Deputy of the Minister of Railways and Canals.

PART I

SKETCH MAPS OF DOMINION RAILWAYS AND CANALS

ALSO INFORMATION AS TO

TRANSCONTINENTAL RAILWAY COMMUNICATION AND AS TO ROUTES OF CANAL NAVIGATION

AND

REPORT OF THE CHIEF ENGINEER

COMPRISING REPORTS OF

GENERAL MANAGER OF GOVERNMENT RAILWAYS AND SUPERINTENDENTS OF CANALS

ALSO

DECISIONS OF THE RAILWAY COMMITTEE OF THE PRIVY COUNCIL

CANADIAN TRANSCONTINENTAL RAILWAY COMMUNICATION.

HALIFAX, OR ST. JOHN, TO MONTREAL.

The routes available between Halifax and Montreal are four in number, in all of which the Intercolonial is used, either in whole or in part, as follows :—

Halifax to Montreal.

	Miles.
1. Intercolonial Railway, via Lévis, to Montreal	837
2. Intercolonial Railway to St. John	275
Canadian Pacific Railway, from St. John to Montreal	480
Total	755
3. Intercolonial Railway to St. John,	275
Canadian Pacific Railway, from St. John to Vanceboro'.	90
Maine Central Railway, from Vanceboro' to Danville Junction	224
Grand Trunk Railway, from Danville Junction to Montreal	270
Total	859
4. Intercolonial Railway to St. John	275
Canadian Pacific Railway from St. John to Edmundston	170
Temiscouata Railway, from Edmundston to Rivière du Loup	81
Intercolonial Railway, from Rivière du Loup to Montreal.	278
	804

St. John to Montreal.

1. Intercolonial Railway, via Lévis, to Montreal	740
2. Canadian Pacific Railway to Montreal	480
3. Canadian Pacific Railway to Edmundston	170
Temiscouata Railway, from Edmundston to Rivière du Loup	81
Intercolonial Railway, from Rivière du Loup to Montreal.	278
Total	529

MONTREAL, OR QUEBEC, TO THE PACIFIC COAST.

Montreal to Vancouver.

	Miles.
1. Canadian Pacific Railway to Vancouver	2,906
2. Grand Trunk Railway to North Bay	560
Canadian Pacific Railway from North Bay to Vancouver	2,546
Total	3,102

Quebec to Vancouver.

	Miles.
1. Canadian Pacific Railway to Vancouver	3,052
2. Grand Trunk Railway to Montreal	172
Canadian Pacific Railway from Montreal to Vancouver	2,906
Total	3,078
3. Grand Trunk Railway to North Bay	732
Canadian Pacific Railway from North Bay to Vancouver	2,542
Total	3,274

The Canadian Pacific Railway was opened for through traffic on June 28, 1886.

INTERCOLONIAL RAILWAY.

The Intercolonial Railway touches six Atlantic Ocean ports, namely, Point du Chene, Pictou, Halifax, St. John, Sydney and North Sydney, as well as the ports of Quebec and Montreal on the River St. Lawrence.

The total length of the road operated during the year ended June 30, 1901, was 1,301 miles, and for freight branches 27 miles, making a total of 1,328 miles.

The following are the through distances:—

	Miles.
Halifax to Montreal, via Lévis	837
St. John to Montreal, via Lévis	740
Sydney to Montreal, via Lévis	990
North Sydney to Montreal, via Lévis	983

Freight is carried direct via St. Henri to Montreal, which would reduce each of the above distances by 6 miles.

WINDSOR BRANCH.

This road extends from Windsor Junction, on the Intercolonial Railway, to Windsor, a distance of 32 miles.

PRINCE EDWARD ISLAND RAILWAY.

LENGTH OF LINE.

	Miles.
Souris to Tignish	167
Mount Stewart to Georgetown	24
Charlottetown to Royalty Junction	5
Emerald Junction to Cape Traverse	13
Alberton to Cascumpec wharf	1
	210

Communication between the Prince Edward Island Railway and the Intercolonial Railway is afforded in summer by steamer between Summerside and Point du Chene, between Charlottetown and Pictou and between Georgetown and Pictou, and in winter by specially built steamers between Georgetown and Pictou and between Charlottetown and Pictou. There is also further provision made for communication by ice boats between Cape Traverse on Prince Edward Island and Cape Tormentine on the mainland, a distance of about 9 miles, at which latter place connection is made with the New Brunswick and Prince Edward Railway about 40 miles in length, connecting with the Intercolonial Railway at Sackville. This winter service across the Straits of Northumberland is efficiently worked by the Marine and Fisheries Department.

CANALS.

The canal systems of the Dominion, under government control in connection with lakes and navigable rivers, are as follows :—

First.—The through route between Montreal and the head of Lake Superior (14 feet minimum depth of water.)

	Miles.
1. Lachine Canal	8½
Lake St. Louis and River St. Lawrence	16
2. Soulanges Canal	14
Lake St. Francis and River St. Lawrence	33
3. Cornwall Canal	11
River St. Lawrence	5
4. Farran's Point Canal	1
River St. Lawrence	10

	Miles.
5. Rapide Plat Canal	3½
River St. Lawrence	4
6. Galops Canal	7¼
River St. Lawrence and Lake Ontario	236
7. Welland Canal	26¾
Lake Erie, Detroit River, Lake St. Clair, Lake Huron, &c.	580
8. Sault Ste. Marie Canal	1¼
Lake Superior to Port Arthur	266
Total	1,223¼
To Duluth	1,357
Chicago	1,286

Second.—Ottawa to Lake Champlain.

1. Grenville. 2. Carillon. 3. St. Anne's. 4. Chambly. 5. St. Ours Canals.

Third.—Ottawa to Kingston and Perth.

1. Rideau Canal.

Fourth.—Lake Ontario at Trenton to Lake Huron at mouth of River Severn.

1. Trent Canal (not completed).

Fifth.—Ocean to the Bras d'Or Lakes.

1. St. Peter's Canal.

RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence, with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, at the head of Lake Superior, a distance of 2,200 statute miles. The distance to Duluth is 2,343 miles. The distance to Chicago 2,272 miles.

From the Straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal, the distance is 986 miles. From Quebec to Montreal, the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from ten to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826, the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 feet 6 inches. By the year 1869, this depth had been increased to 20 feet, by 1882 to 25 feet, and by the close of 1888 the depth of 27½ feet, at

low water, was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the government of Canada, which in 1888, under the provisions of the Act 51 Vic., ch. 5, of that year, assumed the indebtedness. The channel has a minimum width of 300 feet, extending to 550 feet at points of curvature. The channel is lighted and buoyed.

Navigation, which is closed by ice during the winter months, opens about the end of April.

Montreal has by this work been placed at the head of ocean navigation, and here the canal systems of the River St. Lawrence begin, overcoming the various rapids by which the river channel upwards is obstructed, and giving access through the St. Lawrence canals, the Welland canal, the great lakes and the Sault Ste. Marie canal, to the head of Lake Superior.

The difference in level between the point on the St. Lawrence, near Three Rivers, where tidal influence ceases, and Lake Superior, is about 600 feet.

The Dominion canals, constructed between Montreal and Lake Superior, are the Lachine, Soulanges, Cornwall, Farran's Point, Rapide Plat, Galops, Murray, Welland, and Sault Ste. Marie. Their aggregate length is 73 miles; total lockage (or height directly overcome by locks), 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior is 48. The Soulanges canal takes the place of the Beauharnois canal; the latter may be abandoned for navigation purposes.

Communication between Lakes Huron and Superior is obtained by means of the Canadian Sault Ste. Marie canal, and also by the St. Mary's Falls canal, situated on the United States side of the River St. Mary. Both these canals are free of toll.

It is important to note that the enlargement of the canals on the main route between Montreal and Lake Erie comprises locks of the following minimum dimensions: Length, 270 feet; width, 45 feet; depth of water on sills, 14 feet. The length of the vessels to be accommodated is limited to 255 feet. At Farran's, in the canal of that name, the lock is 800 feet long. A similar lock is built at Iroquois on the Galops canal, the object being to pass a full tow at one lockage.

LACHINE CANAL.

Length of canal	$8\frac{1}{2}$ statute miles.
Number of locks	5
Dimension of locks	270 feet by 45 feet.
Total rise or lockage	45 feet.
Depth of water on sills, at two locks	18 "
Depth of water on sills, at three locks	14 "
Average width of new canal	150 "

The old lift locks, 200 feet by 45 feet, are still available, with 9 feet of water on mitre sills.

The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two lock entrances at each end.

The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of the series of rapids which bars the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle Isle.

SOULANGES CANAL.

Length of canal	14 statute miles.
Number of locks { lift	4
Number of locks { guard	1
Dimensions of locks	280 feet by 45 feet.
Total rise or lockage	84 feet.
Depth of water on sills	15 "
Breadth of canal at bottom	100 "
Breadth of canal at water surface	164 "
Number of arc lights	219 of 2,000 c. p. each.

The canal extends from Cascade Point to Coteau Landing, overcoming the Cascade Rapids, Cedar Rapids and Coteau Rapids.

From the head of the Lachine to the foot of the Soulanges the distance is sixteen miles.

CORNWALL CANAL.

Length of canal	11 statute miles.
Number of locks	6
Dimensions of locks	270 feet by 45 feet.
Total rise or lockage	48 feet.
Depth of water on sills	14 "
Breadth of canal at bottom	100 "
Breadth of canal at water surface	164 "

The old lift locks, 200 feet by 45 feet, are also available, with nine feet of water on mitre sills.

From the head of the Soulanges to the foot of the Cornwall Canal there is a stretch through Lake St. Francis, of $32\frac{3}{4}$ miles, which is being made navigable for vessels drawing fourteen feet.

The Cornwall Canal extends past the Long Sault Rapids from the town of Cornwall to Dickinson's Landing.

WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat and Galops canals are collectively known as the Williamsburg Canals.

FARRAN'S POINT CANAL.

Length of canal	1 mile.
Number of locks	1
New lock	800 feet by 45 feet.
Old lock	200 "
Total rise or lockages	$3\frac{1}{2}$ feet.
Depth of water on sills of new lock	14 "
Depth of water on sills of old lock	9 "
Breadth of canal at bottom	90 "
Breadth of canal at water surface	154 "

From the head of the Cornwall canal to the foot of Farran's Point canal, the distance on the River St. Lawrence is five miles. The latter canal enables vessels ascending the river to avoid Farran's Point Rapid, passing the full tow at one lockage. Descending vessels run the rapids with ease and safety.

RAPIDE PLAT CANAL.

Length of canal	$3\frac{2}{5}$ miles.
Number of locks	2
Dimensions of locks	270 feet by 45 feet.
Total rise or lockage	$11\frac{1}{2}$ feet.
Depth of water on sills	14 "
Breadth of canal at bottom	80 "
Breadth of canal at surface of water	152 "

The old lift lock, 200 feet by 45, is also available, with nine feet of water on mitre sills.

From the head of Farran's Point canal to the foot of Rapide Plat canal, there is a navigable stretch of $10\frac{1}{2}$ miles. This canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

GALOPS CANAL.

Length of canal	$7\frac{1}{3}$ miles.
Number of locks	3
Dimensions of locks, one of which is a guard lock.	2–270 by 45.
	1–800 by 45.
Total rise of lockage	$15\frac{1}{2}$ feet.
Depth of water on sills	14 "
Breadth of canal at bottom	80 "
Breadth of canal at surface of water	144 "

From the head of Rapide Plat canal to Iroquois, at the foot of the Galops canal, the St. Lawrence is navigable $4\frac{1}{2}$ miles. The canal enables vessels to overcome the rapids at Pointe aux Iroquois, Point Cardinal and the Galops.

MURRAY CANAL.

Length between eastern and western pier heads	$5\frac{1}{6}$ miles.
Breadth at bottom	80 feet.
Breadth at water surface	120 "
Depth below lowest known lake level	11 "

No locks.

This canal extends through the Isthmus of Murray, giving connection westward between the head waters of the Bay of Quinté and Lake Ontario, and thus enabling vessels to avoid the open lake navigation.

WELLAND CANAL.

Main line from Port Dalhousie, Lake Ontario, to Port Colborne, Lake Erie.

	Old Line.	Enlarged or New Line.
Length of canal	27½ miles	26¾ miles.
Pairs of guard-gates (formerly 3)		2
Number of locks { lift	26	25
Number of locks { guard	1	1
Dimensions	1 lock 200 x 45 1 lock 200 x 45 1 (tidal) 230 x 45 24 locks 150 x 45	270 feet x 45 feet.
Total rise or lockage	326¾ feet	326¾ feet.
Depth of water on sills	10¼ "	14 "

WELLAND RIVER BRANCHES.

Length of canal—	
Port Robinson Cut to River Welland	2,622 feet.
From the canal at Welland to the river, via lock at Aqueduct	300 "
Chippewa Cut to River Niagara	1,020 "
Number of locks—one at Aqueduct and one at Port Robinson	2
Dimensions of locks	150 by 26½ feet.
Total lockage from the canal at Welland down to River Welland	10 feet.
Depth of water on sills	9 feet 10 inches.

GRAND RIVER FEEDER.

Length of canal	21 miles.
Number of locks	2
Dimensions of locks	1 of 150 by 26½ feet. 1 of 200 by 45 "
Total rise or lockage	7 to 8 feet.
Depth of water on sills	9 feet.

PORT MAITLAND BRANCH.

Length of canal	1¾ miles.
Number of locks	1
Dimensions of locks	185 feet by 45 feet.
Total rise or lockage	7½ feet.
Depth of water on sills	11 "

The Welland canal has two entrances from Lake Ontario, at Port Dalhousie, one for the old, the other for the new canal.

From Port Dalhousie to Allanburg, 11¾ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

From Allanburgh to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

From the head of the Welland canal there is a deep water navigation through Lake Erie, the Detroit river, Lake St. Clair, the St. Clair river, Lake Huron and River St. Mary to the Sault canal, a distance of about 580 miles. From the Sault the distance through Lake Superior to Port Arthur is 266 miles, and to Duluth 400 miles.

SAULT STE. MARIE CANAL.

Length of canal, between the extreme ends of the entrance piers	5,967 feet.
Number of locks	1
Dimensions of locks	900 ft. by 60 ft.
Depth of water on sills (at lowest known water level)	20 ft. 3 inches.
Total rise or lockage	18 feet.
Breadth of canal at bottom	141 ft. 8 inches.
Breadth at surface of water	150 feet.

This canal has been constructed through St. Mary's Island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior. The masonry pier of the bridge carrying the Canadian Pacific Railway over the canal, which stood in the channel of the canal, forming an obstruction to navigation, has been removed; the swing now spanning the full width of the channel or prism of the canal.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine Canal, the navigation section of the lower River Ottawa, and the Ottawa canals, to the city of Ottawa; thence by the River Rideau and the Rideau canal to Kingston, on Lake Ontario—a total distance of 245⅝ miles.

After leaving the Lachine canal the works constructed to overcome difficulties of navigation are :—

Ottawa River Canals.

The Ste. Anne's Lock.	Grenville Canal.
Carillon Canal.	Rideau Canal.

The total lockage (not including that of the Lachine canal) is 509 feet—(345 rise, 164 fall)—and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour :—

Sections of Navigation.	Intermediate Distance.	Total Distance from Montreal.
	Miles.	Miles.
The Lachine canal	8½	
From Lachine to Ste. Anne's lock	15	23
Ste. Anne's lock and piers	⅛	23
Ste. Anne's lock to Carillon canal	27	50
The Carillon canal	¾	51
From Carillon to Grenville Canal	6¼	57
The Grenville canal	¾	63
From the Grenville canal to entrance of Rideau navigation	56	119
Rideau navigation ending at Kingston	126¼	245

STE. ANNE'S LOCK.

	Old Lock.	New Lock.
Length of canal	$\frac{1}{8}$ mile.	$\frac{1}{8}$ mile.
Number of locks	1	1
Dimensions of locks	190 x 45 feet.	200 x 45 feet.
Total rise or lockage	3 feet.	3 feet.
Depth of water on sills	6 "	9 "

This work, with guide piers above and below, surmounts the Ste. Anne's rapids between Ile Perrot and the head of the Island of Montreal, at the outlet of that portion of the River Ottawa which forms the Lake of Two Mountains, 23½ miles from Montreal harbour.

THE CARILLON CANAL.

Length of canal	$\frac{3}{4}$ mile.
Number of locks	2
Dimensions of locks	200 x 45 feet.
Total rise or lockage	16 feet.
Depth of water on sills	9 "
Breadth of canal at bottom	100 "
Breadth of canal at water surface	110 "

This canal overcomes the Carillon rapids.

From Ste. Anne's lock to the foot of the Carillon canal there is a navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

By the construction of the Carillon dam across the River Ottawa the water at that point is raised 9 feet, enabling the river above to be used for navigation.

GRENVILLE CANAL.

Length of canal	$5\frac{3}{4}$ miles.
Number of locks	5
Dimensions of locks	200 x 45 feet.
Total rise or lockage	$43\frac{3}{4}$ feet.
Depth of water on sills	9 "
Breadth of canal at bottom	40 to 50 feet.
Breadth of canal at surface of water	50 to 80 feet.

This canal, by which the Long Sault Rapids are avoided, is about 56 miles below the city of Ottawa, up to which point the River Ottawa affords unimpeded navigation.

RIDEAU NAVIGATION.

The Rideau system connects the River Ottawa, at the city of Ottawa, with the eastern end of Lake Ontario, at Kingston.

Length of navigation waters	126¼ miles.
Number of locks going from Ottawa to Kingston	35 ascending 14 descending
Total, lockage 446¼ feet	282¼ rise and 164 fall at high water.
Dimensions of locks	134 x 33 feet.
Depth of water on sills	5 feet.
Navigation depth through the several reaches	4½ feet.
Breadth of canal reaches at bottom	60 feet in earth. 54 feet in rock.
Breadth of canal at surface of water	80 feet in earth.

PERTH BRANCH.

Length of canal	6 miles.
Number of locks	2
Dimensions of locks	134 feet x 32 feet.
Total rise or lockage	26 "
Depth of water on sills	5 " 6 inches.
Length of dam	200 "
Breadth of canal at bottom	40 "
Breadth of canal at surface at water	40 " in rock. 60 " in clay.

The Perth branch of the Rideau canal affords communication between Beveridge's bay, on Lake Rideau, and the town of Perth.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply:—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the River Cataraqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz.:—

1. The summit level, supplied by the Wolfe lake system.

2. The eastern descending level to Ottawa, supplied by the River Tay system, discharging into Lake Rideau.

3. The south-west descending level to Kingston, supplied by the Mud lake system formerly known as the Devil lake system, discharging into Lake Openicon.

Lake Openicon receives the waters of Buck lake and Rock lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow into Cranberry lake, which, discharging through Round Tail outlet, forms the River Cataraqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the Rivers St. Lawrence and Richelieu, 46 miles below Montreal, extends along the River Richelieu, through the St. Ours lock to the basin of Chambly; thence, by the Chambly canal, to St. Johns, and down the River Richelieu to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached. From the boundary line to New York the distance is 330 miles.

The following table shows the distances between Sorel and New York:—

Section of Navigation.	Intermediate Distance.	Total Distances.
	Miles.	Miles.
Sorel to St. Ours lock	14	14
St. Ours Lock te Chambly Canal	32	46
Chambly canal	12	58
Chambly canal to boundary line	23	81
Boundary line to Champlain canal	111	192
Champlain canal to junction with Erie canal	66	258
Erie Canal, from junction to Albany	7	265
Albany to New York	146	411

ST. OURS LOCK AND DAM.

Length	$\frac{1}{8}$ mile.
Number of locks	1 "
Dimensions of lock	200 feet by 45 feet.
Total rise of lockage	5 "
Depth of water on sills	7 feet at low water.
Length of dam in eastern channel	300 "
Length of dam in western channel	690 "

At St. Ours, 14 miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours lock is in the eastern channel.

There is a navigable depth in the Richelieu of 7 feet between St. Ours lock and Chambly basin, a distance of 32 miles.

CHAMBLY CANAL.

Length of canal	12 miles.	
Number of locks	9	
Dimensions of locks:—		
Guard lock, No. 1 at St. Johns	122 feet.	From 22½ to 24 feet wide.
Lift " 2	124 "	
" " 3, 4, 5, 6	118 "	
" " 7, 8, 9 combined	125 "	
Total rise or lockage	74 "	
Depth of water on silis	7 "	
Breadth of canal at bottom	36 "	
Breadth of canal at surface of water	60 "	

This canal succeeds the 32 miles of navigable water between St. Ours lock and Chambly basin. The canal overcomes the rapids between Chambly and St. Johns.

TRENT CANAL.

The term 'Trent canal' is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in their present condition, are efficient only for local use. By various works this local use has been extended, and by others, now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified, is as follows:—

Through the River Trent, Rice lake, the River Otonabee and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton ; from Lake Balsam by a canal and the River Talbot to Lake Simcoe ; thence by the River Severn to Georgian bay, Lake Huron ; the total distance being about 200 miles, of which only about 15 or 20 miles will be actual canal.

The full execution of the scheme, commenced by the Imperial government in 1837, was deferred. By certain works, however, below specified, sections of these waters have been made practicable for navigation, and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon lake south, affords communication with the town of Lindsay, and, through Lake Scugog to Port Perry, a distance of 190 miles from Trenton.

The following table gives the distance of navigable and unnavigable reaches :—

	Navigable Miles.	Unnavigable Miles.
From Trenton, Bay of Quinté to Nine Mile rapids.	—	9
Nine Mile rapids to Percy landing	19½	—
Percy landing to Heeley's Falls dam	—	14½
Heeley's Falls dam to Peterborough	51¾	—
Peterborough to Lakefield	—	9
Lakefield to a point across Balsam lake	61	—
	132¼	32¾
Total distance, Bay of Quinté to a point across Balsam lake		165
From Sturgeon Point on Sturgeon lake, 48¾ miles from Lakefield, the branch through the town of Lindsay to Port Perry at the head of Lake Scugog		27

The works by which the Trent navigation has been improved comprise canals, with locks and bridges, at Young Point, Burleigh Rapids, Lovesick, Buckhorn Rapids, Bobcaygeon, Fenelon Falls and Rosedale ; also dams at Lakefield, Young's Point, Burleigh Falls, Lovesick, Buckhorn, Bobcaygeon and Fenelon Falls. By these works there is afforded communication between Lakefield, 9½ miles from Peterborough, and Balsam lake, the headwaters of the system ; opening up a total of about 160 miles of direct and lateral navigation.

At Lakefield, 9½ miles from Peterborough, the dam at the head of the Nine Mile rapids of the River Otonabee, maintains navigation on Lake Katchewannoe up to Young's Point.

At Young's Point, 5 miles from Lakefield, the dam between Lake Katchewannoe and Clear lake controls the water level through Clear and Stony lakes up to the foot of the Burleigh canal. The lock here, it should be observed, is controlled by the Provincial government.

At Burleigh Rapids, 10 miles from Young's Point, a canal, about 2¼ miles in length, passes the Burleigh and Lovesick rapids, and gives communication between Stony lake and Deer bay.

At Buckhorn rapids, 7 miles from Burleigh Rapids, there is a canal about one-fourth of a mile long.

At Bobcaygeon, 15¾ miles from Buckhorn Rapids, a dam, 553 feet long, controls the water level up to Fenelon Falls.

At Fenelon Falls, 15 miles from Bobcaygeon, a canal about one-third of a mile in length connects Sturgeon lake with Cameron lake.

The following is a list of the locks, with their dimensions:—

1	Lock at Rosedale (maintained by the Ontario government)	100′ x 30′ x 4′ 6″ to 6′ 6″	depth water on mitre sill.	
2	Locks at Fenelon	134′ x 33′ x 5′ 0″ to 7′ 6″	depth water on mitre sill.	
1	" Lindsay	134′ x 33′ x 5′ 0″ to 7′ 0″	"	"
1	" Bobcaygeon	134′ x 33′ x 5′ 8″ to 7′ 6″	"	"
1	" Buckhorn	134′ x 33′ x 5′ 0″ to 9′ 0″	"	"
1	" Lovesick	134′ x 33′ x 5′ 0″ to 9′ 4″	"	"
2	" Burleigh	134′ x 33′ x 6′ 0″ to 8′ 0″	"	"
1	" Young's Point (a Provincial government work)	134′ x 33′ x 5′ 0″ to 14′ 0″	depth water on mitre sill.	
1	" Peterborough	134′ x 33′ x 5′ 0″ to 10′ 0″	depth water on mitre sill.	
1	" Hastings	134′ x 33′ x 7′ 0″ to 10′ 6″	"	
1	" Chisholm's	134′ x 33′ x 5′ 0″ to 8′ 6″	"	
13				

ST. PETER'S CANAL, CAPE BRETON.

Length of canal	About 2,400 feet.
Breadth at water line	55 feet.
Lock	One tidal lock, 4 pairs of gates.
Dimensions	200 feet by 48 feet.
Depth of water on sills	18 " at lowest water.
Depth through canal	19 "
Extreme rise and fall of tide in St. Peter's Bay	4 "

This canal connects St Peter's bay on the southern side of Cape Breton, Nova Scotia, with the Bras d'Or lakes. It crosses an isthmus half a mile in width, and gives access from the Atlantic.

BEAUHARNOIS CANAL.

Length of canal	12 statute miles.
Number of locks	9
Dimensions of locks	200 feet by 45 feet.
Total rise or lockage	82½ "
Depth of water on sills	9 "
Breadth of canal at bottom	80 "
Breadth of canal at water surface	120 "

As the new Soulanges canal is now opened for navigation, it is to be presumed that the Beauharnois canal will be abandoned for navigation purposes.

CHIEF ENGINEER'S REPORT

Department of Railways and Canals,
Office of the Chief Engineer,
Ottawa, November 1, 1902.

Sir,—I have the honour to submit my annual report for the fiscal year ended June 30, 1902, covering however the works of construction up to 1st October instant. Accompanying it are the following :—

First.—The annual report of the General Manager of Government Railways, to which are attached the report of the Chief Engineer, the Engineer of Maintenance, the Mechanical Superintendent of the Intercolonial Division and the report of the Superintendent of the Prince Edward Island Division, with statements of accounts prepared by the Accountants of these roads. (Part I.)

Second.—The annual reports of the Superintending Engineers of the several Canals, and of the Superintendents of the Sault Ste. Marie Canal, the St. Peter's Canal and of the St. Lawrence Canals. The engineer in charge of the improvements of the upper entrance of the Welland Canal and the engineer in charge of the improvements to the entrance to the Sault Ste. Marie Canal. (Part I.)

Third.—Proceedings before the Railway Committee of the Privy Council. (Part I).

Fourth.—Financial Statements of the Accountant of the Department. (Part II).

Fifth.—A statement of the condition of the subsidies granted in aid of the construction of railways; also a list of Railway Subsidy Acts. (Part III.)

Sixth.—Statement of contracts entered into during the year, prepared by Mr. Ruel. (Part IV.)

Seventh.—Statement of water powers and other public property leased by the Department during the year, prepared by Mr. Ruel. (Part IV.)

Eighth.—Statement of property purchased or damaged during the year, prepared by Mr. Ruel. (Part IV.)

Ninth.—Agreements respecting subsidies in aid of construction of railways entered into during the year, prepared by Mr. Ruel. (Part IV.)

Tenth.—The Canal Statistics for the season of navigation of 1901, compiled by Mr. Devlin. (Part V.)

Eleventh.—The Railway Statistics for the year ended June 30, 1902, compiled by Mr. Ridout from returns prepared by the Railway Companies. (Part VI.)

The following shows the length of the government railways in operation on June 30, 1902 :—

INTERCOLONIAL RAILWAY.

MAIN LINE AND BRANCHES.

	Miles.
Montreal to Halifax, via Lévis	837
Moncton to St. John	89
Truro to Sydney	213
Oxford Junction to Pictou	69
St. Charles Junction to Chaudière Curve, via St. Henri	17
Dalhousie Junction to Dalhousie	7
Derby Junction to Indiantown	14
Painsec Junction to Point du Chene	12
Pugwash Junction to Pugwash	5
Stellarton Junction to Brown's Point	12
North Sydney Junction to North Sydney	5
New Glasgow to Pictou Landing	8
Dartmouth Branch	13
	1,301

FREIGHT BRANCHES.

	Miles.	
Nicolet Branch	14·76	
Rivière du Loup Wharf Branch	4	
Rimouski "	2	
Newcastle "	2	
Dorchester "	1	
Courtney Bay "	1	
Sackville "	·50	
Stewiacke "	1	
Halifax Cotton Factory Branch	1	
		27·26
Total		1,328·26

WINDSOR BRANCH.

Windsor Junction to Windsor	32

PRINCE EDWARD ISLAND RAILWAY.

Souris to Tignish	167	
Mount Stewart to Georgetown	24	
Charlottetown to Royalty Junction	5	
Emerald Junction to Cape Traverse	13	
Alberton to Cascumpec Wharf	1	
		210
Total length of government railways		1,570·26

The result of the year's operations of the government railways may be stated as follows :

Name of Railway.	Mileage in Operation.	Amount.		Profit.	Loss.
			$ cts.	$ cts.	$ cts.
Intercolonial Division	1,301	Working expenses..	5,574,563 30		
		Earnings	5,671,385 91	96,822 61	Nil.
Windsor Branch	32	One-third earnings.	49,604 59		
		Maintenance	16,376 27	33,228 32	Nil.
Prince Edward Island Division	210	Working expenses	270,159 97		
		Earnings	197,999 97	Nil.	72,160 00
Total miles	1,543			130,050 93	72,160 00
		Deduct loss from profit		72,260 00	
		Net profit		57,890 93	

The maintenance of the roads and rolling stock has received careful attention, and both roads continue to be in efficient condition : the rolling stock is being brought up to the modern standard.

The working expenses of the Intercolonial Railway given above include the $140,000 rental paid to the Grand Trunk Railway.

The gross earnings of the government railways for the last two years compare as follows :—

	1900-1901.	1901-1902.
Intercolonial Division	$4,927,235 87	$5,671,385 91
Windsor Branch	47,261 89	49,604 59
Prince Edward Island Division	193,883 48	197,999 97
	$5,213,381 24	$5,918,990 47

Showing an increase in the gross earnings of $705,609.23.

The gross working expenses of the government railways for the last two years compare as follows :—

	1900-1901.	1901-1902.
Intercolonial Division	$5,460,422 64	$5,574,563 30
Windsor Branch	16,862 66	16,376 27
Prince Edward Island Division	261,766 24	270,159 97
Total	$5,739,051 54	$5,861,099 54

Gross working expenses of government railways	$5,861,099 54
Gross earnings of government railways	5,918,990 47
Excess of working expenses, including rental $140,000, over earnings	$ 57,890 93

SESSIONAL PAPER No. 20

Showing an increase in working expenses for the year, compared with the previous year, of $122,048, which is made up of the following :—

	1900-1901.	1901-1902.	Difference.	
			Increase.	Decrease.
	$ cts.	$ cts.	$ cts.	$ cts.
Locomotive power	2,044,801 60	2,107,121 60	62,320 00	Nil.
Car expenses	1,177,127 98	1,180,186 12	3,058 14	Nil.
Maintenance of way and works	1,264,339 56	1,254,927 47	Nil.	9,412 09
Station expenses	664,154 41	737,718 80	73,564 39	Nil.
General charges	384,760 57	457,844 49	73,083 92	Nil.
Car mileage	63,867 42	16,743 94	Nil.	80,611 36
Rental of leased lines	140,000 00	140,000 00	Nil.	Nil.
	5,739,051 54	5,877,798 48	212,026 45	
Deduct decrease			90,023 45	90,023 45
Net increase			122,003 00	

INTERCOLONIAL DIVISION.

The ocean passenger and freight traffic via the port of Halifax shows a considerable increase for the winter season of 1901-02, as compared with the previous winter season.

Comparative Statement of Ocean-borne Passenger Business done at the Port of Halifax during the Winter Seasons of 1900-1 and 1901-2.

Name of Steamer.	1900-1901. No. of Passengers.			Name of Steamer.	1901-1902. No. of Passengers.		
	1st Class.	2nd Class.	Total.		1st Class.	2nd Class.	Total.
Vancouver	Nil.	1	1	Pretorian	16	2	18
Parisian	5	9	14	Parisian	23	50	73
Idaho	1	84	85	Neckon Castle	50	2,198	2,248
Corinthian	2	39	41	Corinthian	23	30	53
Carthagenian	Nil.	22	22	Manchester Shipper	1	146	147
Lake Champlain	26	155	181	Siberian		7	7
Degania	3	1	4	Lake Manitoba		37	37
Montford	Nil.	23	23	Corean	3	28	31
State of Nebraska	Nil.	6	6	Assyrian		19	19
Numidian	2	11	13	Numidian	21	61	82
Wassan	Nil.	84	84	Arcadian	1	12	13
Lake Ontario	14	129	143	Buenas		7	7
Laruentian	2	46	48	Lake Superior	1	22	23
Sicilian	1	100	101	Tunisian	37	66	103
Armenian	Nil.	1	1	Ionian	37	114	151
Corean	Nil.	4	4	Garth Castle		42	42
Assyrian	Nil.	1	1				
Lake Superior	7	39	46				
Lake Megantic	4	159	163				
Lusitania	4	110	114				
Tunisian	10	35	45				
Total	81	1,091	1,172	Total	213	2,841	3,054

Of the 3,054 passengers carried by the Intercolonial Railway in 1901-2 as above, 1,293 travelled via St. John by the Canadian Pacific Railway, and 1,761 travelled by the Intercolonial Railway to Montreal.

COMPARATIVE STATEMENT of Ocean-borne Freight Traffic during the Winter Seasons of 1900-1901 and 1901-1902.

Name of Line of Steamers.	Winter of 1900-1901. Measurement tons.	Weight tons.	Total tons.	Name of Line of Steamers.	Winter of 1901-1902. Measurement tons.	Weight tons.	Total tons.
Allan Line.....	5,660	4,202	9,862	Furness-Allan	2,433	2,640	5,073
Furness Line.....	6,656	5,406	12,062	Allan Line.....	3,679	3,265	6,944
Elder-Dempster ...	467	312	779	Furness Line.....	2,419	2,064	4,483
Pickford and Black	339	564	903	Elder-Dempster ...	.....	.....	.....
				Pickford and Black	30	11,830	11,860
				Beaver Line	31	13	44
Total.....	13,122	10,484	23,606	Total.....	8,592	19,812	28,404

The above statement shows an increase of 4,798 tons of ocean-borne freight traffic for the winter season of 1901-1902, as compared with the winter season of 1900-1901.

The following is a statement of the quantity and classes of the rolling stock purchased on capital account up to June 30, 1902 :—

	Engines.	Dining cars.	Passenger Car Stock. 1st class sleeping and parlour.	1st class.	2nd class sleepers.	2nd class.	Baggage and mail postal.	Conductor's van.	Box, cattle and refrigerator cars.	Platform cars	Coal cars of 3 several kinds.	Snow ploughs.	Wing ploughs.	Plungers.	Rotary snow ploughs.	Auxiliary cars.
	.....	.....	.....	....	....	....	.....	....	5,186	....	999	..	..	...	...	..
	280	7	27	109	25	93	50	99	123	2,521	152	49	10	22	2	10
	....	..	5	...	....	....	32	....	84	.....	624	....	...	...	....	....
Total.....	280	7	32	109	25	93	82	99	5,393	2,521	1,775	49	10	22	2	10

NOTE.—1 postal car converted into an auxiliary car.

The following is a statement of the quantity and classes of rolling stock which have been built during the year ended June 30, 1902, at the cost of revenue to maintain the work :—

—	Engines.	Passenger Car Stock.				Conductor's van.	Auxiliary cars.	Box and cattle cars.	Parlor cars.	Coal cars of three several kinds.	Snow ploughs.	Wing ploughs.	Flangers.	Rotary snow ploughs.
		1st class sleeping and parlor.	1st class.	2nd class sleepers.	2nd class.	Baggage and mail.								
Total	7							34	21	6				

The following table shows the working expenses, gross earnings, the tonnage of freight and number of passengers carried each year since July 1, 1876, when the road was first opened as a through line to the west :—

Year.	Average Miles in Operation.	Working Expenses.	Gross Earnings.	Profit.	Loss.	Tons of Freight carried.	No. of Passengers carried.
		$ cts.	$ cts.	$ cts.	$ cts.		
1876-77	714	1,661,673 55	1,154,445 33		507,228 22	421,327	613,420
1877-78	714	1,816,273 56	1,378,946 78		432,326 78	522,710	618,957
1878-79	714	2,010,183 22	1,294,009 69		716,083 53	510,861	640,101
1879-80	829	1,603,429 71	1,506,298 48		97,131 23	561,924	581,483
1880-81	840	1,759,851 27	1,760,393 92	542 65		725,777	631,245
1881-82	840	2,069,657 48	2,079,262 66	9,605 18		838,956	779,994
1882-82	840	2,360,373 27	2,370,910 10	10,547 83		970,961	878,600
1883-84	887	2,377,433 62	2,384,414 92	6,981 30		1,009,237	944,636
1884-85	941	2,519,751 56	2,441,203 66		78,547 90	989,936	957,228
1885-86	946	2,583,999 67	2,450,093 88		133,905 79	1,023,788	932,880
1886-87	977	2,922,369 62	2,660,116 93		262,252 69	1,143,020	942,784
1887-88	971	3,366,781 74	2,983,336 05		383,445 69	1,288,823	1,040,163
1888-89	971	3,244,647 73	2,967,801 00		276,847 73	1,218,877	1,136,272
1889-90	971	3,560,575 74	3,012,739 87		847,835 87	1,368,819	1,219,233
1890-91	1,094	3,662,341 94	2,977,395 38		684,946 56	1,304,534	1,298,304
1891-92	1,142	3,439,377 00	2,945,441 97		493,935 03	1,264,575	1,297,732
1892-93	1,142	3,045,317 50	3,065,499 09	20,181 59		1,388,080	1,292,878
1893-94	1,142	2,981,671 98	2,987,510 27	5,838 29		1,342,710	1,301,062
1894-95	1,142	2,936,902 74	2,940,717 95	3,815,21		1,276,816	1,352,667
1895-96	1,142	3,012,827 62	2,957,640 10		55,187 52	1,379,618	1,471,866
1896-97	1,145	2,925,968 67	2,866,028 02		59,940 65	1,296,628	1,501,690
1897-98	1,201	3,327,648 51	3,117,669 85		209,978 66	1,424,576	1,523,444
*1898-99	1,301	3,675,686 21	3,738,331 44	62,645 43		1,750,761	1,603,095
*1899-1900	1,301	4,431,404 69	4,552,071 71	120,667 02		2,151,208	1,791,754
*1900-01	1,301	5,460,422 64	4,972,235 87		488,186 77	2,111,310	2,025,295
*1901-02	1,301	5,574,563 30	5,671,385 91	96,822 61		2,385,816	2,186,226

* The working expenses include the rental paid for leased lines.

The following table shows the number of tons of coal carried over the Intercolonial Railway from the Nova Scotia collieries to Ste. Rosalie, Chaudière Junction and St. John for points west thereof, and to local stations in each year since the road was opened as a through line:—

Year.	For the West.			To Local Stations.	Total.
	Via Ste. Rosalie.	Via Chaudière.	Via St. John.		
1876-77				103,420	103,420
1877-78				97,043	97,043
1878-89		300		112,232	112,532
1879-80		1,097		135,369	136,466
1880-81		5,102	4,022	174,483	184,607
1881-82		18,015	11,779	218,364	248,158
1882-83		12,837	22,206	227,380	262,423
1883-84		22,014	19,534	252,014	293,562
1884-85		133,440	1,773	213,791	349,004
1885-86		171,170	21,150	215,272	407,592
1886-87		192,871	27,536	233,178	453,585
1887-88		183,704	36,228	309,727	529,659
1888-89		160,026	27,923	338,538	526,487
1889-90		164,453	25,126	366,967	556,546
1890-91		113,996	39,213	344,829	498,038
1891-92		35,447	5,918	392,441	433,806
1892-93		136,868	3,775	402,653	543,296
1893-94		102,273	8,028	367,390	478,691
1894-95		67,082	7,865	310,253	385,200
1895-96		53,124	9,681	369,708	432,513
1896-97		38,395	12,305	331,469	382,172
1897-98		9,084	9,796	351,069	369,949
1898-99		4,644	5,399	484,163	494,206
1899-1900		3,495	Nil.	599,714	603,289
1900-01	136	Nil.	Nil.	506,454	506,590
1901-02	1,131	5,763	3,640	546,986	557,520

It thus appears that the largest tonnage of coal carried over the road for the west was in the year 1886-87, when it reached 220,407 tons, since which the through coal traffic for points west of the Intercolonial Railway has greatly declined.

TABLE showing the number of bushels of grain carried during each year for shipment at Halifax since the road was opened as a through line to the west.

Year.	Bushels.		Total.	Year.	Bushels.		Total.
	Via Chaudière.	Via St. John.			Via Chaudière.	Via St. John.	
1876-77				1889-90	502,012		502,012
1877-78				1890-91	148,803	59,534	218,337
1878-79				1891-92	845,997	519,500	1,265,497
1879-80				1892-93	155,306	197,669	352,975
1880-81				1893-94	Nil.	8,026	8,026
1881-82				1894-95	Nil.	Nil.	Nil.
1882-83	31,011		31,011	1895-96	Nil.	Nil.	Nil.
1883-84	73,389		73,389	1896-97	Nil.	Nil.	Nil.
1884-85	300,901		300,901	1897-98	8,000	Nil.	8,000
1885-86	389,122		389,122	1898-99	30,000	Nil.	30,000
1886-87	575,880		575,880	1899-1900	13,239	Nil.	13,239
1887-88	69,021		69,021	1900-01	147	Nil.	147
1888-89	129,725		129,725	1901-02	Nil.	Nil.	Nil.

TABLE showing the number of barrels of flour carried during each year since the road was first opened as a through line to the west.

Year.	Barrels.	Year.	Barrels.
1876-77	254,710	1889-90	1,116,050
1877-78	557,778	1890-91	1,013,129
1878-79	630,329	1891-92	954,015
1879-80	535,248	1892-93	856,913
1880-81	672,310	1893-94	944,967
1881-82	692,095	1894-95	938,351
1882-83	983,916	1895-96	822,097
1883-84	817,134	1896-97	847,701
1884-85	935,977	1897-98	987,408
1885-86	761,127	1898-99	1,157,250
1886-87	763,894	1899-1900	1,234,076
1887-88	871,838	1900-01	1,292,106
1888-89	948,514	1901-02	1,311,707

TABLE showing the number of bushels of grain carried during each year since the road was first opened as a through line to the west.

Year.	Bushels.	Year.	Bushels.
1876-77	292,852	1899-90	2,610,202
1877-78	331,170	1890-91	2,890,921
1878-79	302,921	1891-92	3,776,677
1879-80	534,021	1892-93	1,514,619
1880-81	565,678	1893-94	1,304,684
1881-82	560,253	1894-95	1,036,384
1882-83	1,195,601	1895-96	1,064,385
1883-84	654,673	1896-97	1,093,499
1884-85	734,902	1897-98	1,551,372
1885-86	849,800	1898-99	2,595,353
1886-87	1,018,395	1899-1900	2,720,453
1887-88	1,219,035	1900-1901	3,535,364
1888-89	1,256,158	1901-02	2,959,761

TABLE showing the quantity of lumber in feet carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Feet.	Year.	Feet.
1876-77	50,096,474	1889-90	210,886,071
1877-78	56,626,547	1890-91	184,188,324
1878-79	55,626,696	1891-92	175,474,340
1879-80	55,462,654	1892-93	181,211,013
1880-81	72,841,388	1893-94	200,507,949
1881-82	78,356,418	1894-95	202,247,269
1882-83	104,633,417	1895-96	226,332,715
1883-84	131,120,948	1896-97	243,355,725
1884-85	138,493,675	1897-98	354,093,816
1885-86	117,186,512	1898-99	306,554,031
1886-87	161,801,763	1899-1900	379,350,074
1887-88	197,755,272	1900-1901	396,858,964
1888-89	199,507,777	1901-02	428,051,029

TABLE showing the number of live stock carried during each year over the road since it was first opened for traffic as a through line to the west.

Year.	Number.	Year.	Number.
1876-77	34,414	1889-90	80,771
1877-78	46,498	1890-91	95,529
1878-79	47,584	1891-92	87,889
1879-80	70,990	1892-93	93,369
1880-81	61,574	1893-94	79,203
1881-82	73,479	1894-95	72,106
1882-83	68,338	1895-96	64,051
1883-84	60,090	1896-97	72,082
1884-85	70,785	1897-98	89,301
1885-86	74,498	1898-99	109,821
1886-87	82,896	1899-1900	92,813
1887-88	98,302	1900-01	95,923
1888-89	85,960	1901-02	98,495

TABLE showing the number of tons of ocean-borne goods to and from Europe, via the port of Halifax, carried over the road during each year since it was first opened for traffic as a through line.

Year.	Via Ste. Rosalie and from the West.	Via Chaudière to and from the West.	Via St. John to and from the West.	To and from local Stations.	Total.
1876-77					
1877-78		14,949		3,405	18,354
1878-79		21,628		2,643	24,271
1879-80		21,073		4,952	26,025
1880-81		15,454		3,334	18,788
1881-82		21,607		4,168	25,775
1882-83		24,875		7,911	32,786
1883-84		19,696		6,533	26,229
1884-85		22,787		8,405	31,192
1885-86		13,464		8,216	21,680
1886-87		16,923		9,811	26,734
1887-88		41,864		8,878	50,742
1888-89		17,340		11,481	28,821
1889-90		9,895		11,730	21,625
1890-91		9,923		10,764	20,687
1891-92		9,719	17	23,835	33,571
1892-93		7,295	100	12,319	19,714
1893-94		3,023	204	13,455	16,682
1894-95		6,749	213	10,399	17,361
1895-96		3,767	314	16,748	20,829
1896-97		2,654	263	17,239	20,156
1897-98		5,950	1,637	18,633	26,220
1898-99		2,465	243	31,555	34,263
1899-1900		2,379	307	37,108	39,794
1900-01	322	6,860	1,142	155,514	163,838
1901-02	1,106	7,780	1,528	172,733	183,147

TABLE showing the number of tons of raw and refined sugar carried over the road during each year since it was first opened as a through line.

Year.	Raw Sugar.				Refined Sugar.				
	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Ste-Rosalie for the West.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876–77	340			340					
1877–78	186			186					
1878–79	1,041			1,041					
1879–80	12,220			12,220					
1880–81	13,872			13,872		4,022		2,902	6,924
1881–82	14,256		1,290	15,546		7,146		3,607	10,753
1882–83	9,465		508	9,973		11,126		5,497	16,623
1883–84	13,778		3,068	16,846		14,543		7,265	21,808
1884–85	10,381		3,661	14,042		18,024		8,445	26,469
1885–86	4,394		3,998	8,392		7,674		5,858	13,518
1886–87	20,450		8,500	28,950		15,044		8,395	23,439
1887–88	14,320		14,085	28,405		21,641		7,133	28,774
1888–89	24,358		7,160	31,518		12,955		11,120	24,075
1889–90	7,390		8,913	16,303		6,778		6,125	12,903
1890–91	5,088	4,670	8,215	17,973		10,130	468	5,996	16,594
1891–92	7,142	3,960	10,535	21,637		12,633	7,647	12,414	32,721
1892–93	Nil.	Nil.	10,137	10,137		8,327	6,456	7,840	22,623
1893–94	Nil.	Nil.	6,775	6,775		17,729	6,967	8,885	33,581
1894–95	Nil.	Nil.	10,342	10,342		13,351	15,819	4,695	33,865
1895–96	Nil.	Nil.	9,824	9,824		15,138	13,734	11,309	40,181
1896–97	Nil.	Nil.	4,925	4,925		5,694	8,069	6,957	20,720
1897–98	Nil.	Nil.	Nil.	Nil.		6,624	8,821	10,989	26,534
1898–99	Nil.	Nil.	Nil.	Nil.		8,138	2,193	15,833	26,164
1899–1900	96	Nil.	Nil.	96		9,795	257	19,655	29,907
1900–01	489	Nil.	Nil.	489	403	14,791	12	10,615	25,821
1901–02	90	Nil.	11,553	11,643	3,101	6,831	861	18,839	29,632

SESSIONAL PAPER No. 20

TABLE showing the number of tons of fresh and salt fish carried over the road during each year since it was opened as a through line.

Year.	Fresh Fish.					Salt Fish.				
	To Ste. Rosalie for the West.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.	To Ste. Rosalie.	To Chaudière for the West.	To St. John for the West.	To Local Stations.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1876-77		530	921	527	1,978		551	1,848	802	3,201
1877-78		596	1,015	474	2,085		898	1,644	805	3,347
1878-79		471	1,336	817	2,624		988	1,038	1,048	2,974
1879-80		519	1,362	453	2,334		1,612	2,238	959	4,809
1880-81		498	1,879	920	3,297		2,418	937	1,051	4,406
1881-82		475	1,619	957	3,051		4,031	1,066	2,487	7,584
1882-83		542	384	393	1,319		3,229	759	1,354	5,412
1883-84		838	1,682	412	2,932		1,322	1,143	1,224	3,689
1884-85		1,062	1,885	484	3,431		3,563	3,600	1,596	8,759
1885-86		1,669	1,645	902	4,216		1,689	2,047	3,376	7,103
1886-87		1,278	1,572	2,008	4,858		3,236	569	1,747	5,552
1887-88		1,533	1,477	1,031	4,041		2,617	476	1,099	4,193
1888-89		2,474	2,000	1,870	6,344		3,070	7,746	2,994	13,810
1889-90		2,235	1,787	2,111	6,223		2,449	847	3,288	6,584
1890-91		2,029	2,788	1,848	6,665		1,953	1,917	3,236	7,106
1891-92		1,367	1,746	547	3,660		1,946	928	1,889	4,763
1892-93		1,683	1,875	3,340	6,898		3,262	1,811	2,176	7,249
1893-94		1,959	2,192	2,224	6,375		2,921	1,814	2,962	7,697
1894-95		2,006	3,726	1,160	6,892		2,075	1,849	5,285	10,209
1895-96		1,966	3,059	1,319	6,344		1,863	1,087	2,791	5,741
1896-97		3,307	3,115	1,286	7,708		2,168	1,176	2,536	5,880
1897-98		3,575	3,703	1,052	8,330		1,729	1,666	2,210	5,005
1898-99		1,210	2,070	3,305	6,583		1,651	1,198	3,625	5,474
1899-1900		2,547	2,706	3,686	8,939		2,421	1,563	2,659	6,643
1900-01	37	2,009	3,207	4,125	9,393	360	3,419	1,346	4,643	9,768
1901-02	219	3,013	4,373	5,477	13,082	283	3,150	1,413	5,196	10,042

Thirty-eight miles of the 67 lb., 15 miles of the 56 lb. and 40 miles of 58 lb. steel rails have been lifted and replaced by 80 lb. steel rails, and 557,393 ties have been renewed.

CAPITAL ACCOUNT.

Total cost of road and equipment up to June 30, 1902:—	
Road, including $1,464,000 paid on account purchasing Drummond County Railway	$ 55,421,896 66
Rolling stock	12,888,722 89
Total	$ 68,310,619 55

The increased accommodation at the deep water terminus at Halifax has been further improved. The yard at North street has been rearranged and the station at North street has been remodelled and enlarged.

Additions have been made to the rolling stock, and both the road and rolling stock have been efficiently maintained during the year.

The improved net results in the operation of this road may be largely attributed to the wise policy adopted in introducing much more powerful locomotives and freight cars of greater carrying capacity than had heretofore been in use upon the road; and the bringing of the passenger train equipment up to a high standard of excellence. Further improvements in this direction are contemplated.

WINDSOR BRANCH.

This road continues to be operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company, the company receiving two-thirds of the gross earnings for working the traffic, and the government one-third of the gross earnings for maintaining the way and works.

This road has been maintained in efficient condition.

SESSIONAL PAPER No. 20

TABLE showing the earnings and its division between the Windsor Branch and the Main Line of the Intercolonial Railway between Windsor and Halifax, the maintenance expenses and net earnings of the Windsor Branch for each year since 1880.

Year.	Miles in operation.	One-third gross earnings.	Proportion of one-third gross earnings credited to line Windsor Junction to Halifax.	Proportion of one-third gross earnings credited to the Windsor Branch.	Maintenance expenses.	Profit.	Loss.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1880-81..	32	28,434 29	7,217 76	21,216 53	20,502 26	714 27	.....
1881-82..	32	28,461 07	7,407 88	21,052 19	13,099 55	7,953 64	.....
1882-83..	32	31,199 77	8,085 88	24,113 89	23,103 93	1,009 96	.....
1883-84..	32	30,428 39	7,409 46	23,018 93	22,140 86	878 07	.....
1884-85 .	32	32,246 30	7,794 95	24,451 35	18,751 96	5,699 39	.....
1885-86..	32	31,185 63	7,527 52	23,658 11	19,229 49	4,428 62	.....
1886-87..	32	33,564 58	8,237 00	25,327 58	26,042 33	.....	714 75
1887-88..	32	32,242 85	6,689 30	24,553 55	24,040 33	513 22	.....
1888-89..	32	37,313 43	8,941 32	28,372 11	20,856 50	7,515 61	.....
1889-90..	32	39,544 19	9,381 73	30,162 46	18,982 82	11,179 64	.....
1880 91..	32	39,519 56	9,284 43	33,508 35	28,931 71	1,303 42	.....
1881-92..	32	42,891 23	9,382 38	30,235 13	19,514 37	13,994 48	.....
1882-93..	32	43,901 28	9,585 17	34,316 11	16,889 95	17,426 16	.....
1883-94..	32	41,834 70	8,859 23	32,975 47	17,645 09	15,330 38	.....
1884-95..	32	50,703 84	11,626 20	39,077 64	14,640 07	24,437 57	.....
1885-96..	32	47,456 74	10,894 91	36,561 83	16,476 46	20,985 37	.....
1886-97..	32	54,208 81	13,605 58	40,603 23	10,821 04	29,782 19	.....
1887-98..	32	48,892 21	11,665 57	37,226 64	18,181 09	14,045 01	.....
1888-99..	32	56,314 51	13,840 48	42,474 04	12,873 06	29,600 94	.....
1889-1900	32	62,266 61	14,925 18	47,351 43	12,891 56	34,459 87	.....
1900-01..	32	62,523 20	15,261 31	47,261 89	16,862 66	30,399 23	.....
1901-02..	32	65,315 38	15,710 79	49,604 59	16,376 27	33,228 32	.....

PRINCE EDWARD ISLAND RAILWAY.

CAPITAL ACCOUNT.

Total cost of road and rolling stock up to June 30, 1902 :—

Road, &c	$4,083,296 15
Rolling stock	516,529 00
Total	$4,599,825 15

The rolling stock provided on capital account consists of :—

Engines.	Passenger car Stock.			Official cars.	Box, cattle and Refrigerator cars.	Platform car and coal cars.	Conductors' vans.	Pay car.	Snow ploughs.	Flangers.
	1st class cars.	2nd class cars.	Baggage, smoking and postal.							
25	21	14	4	1	203	147	3	1	8	7
			3		17	18				
			2		1	....				
			9		221	165				

The capital expenditure during the year amounted to $475,997.94, of which $272,404.47 was expended on the construction of the Murray Harbour branch railway and on the Hillsboro' bridge $177,595.53, and $6,000 for steel rails, 56 lbs. to the yard.

Statement of rolling stock rebuilt during the year :—2 coal, 13 platform and 2 box cars.

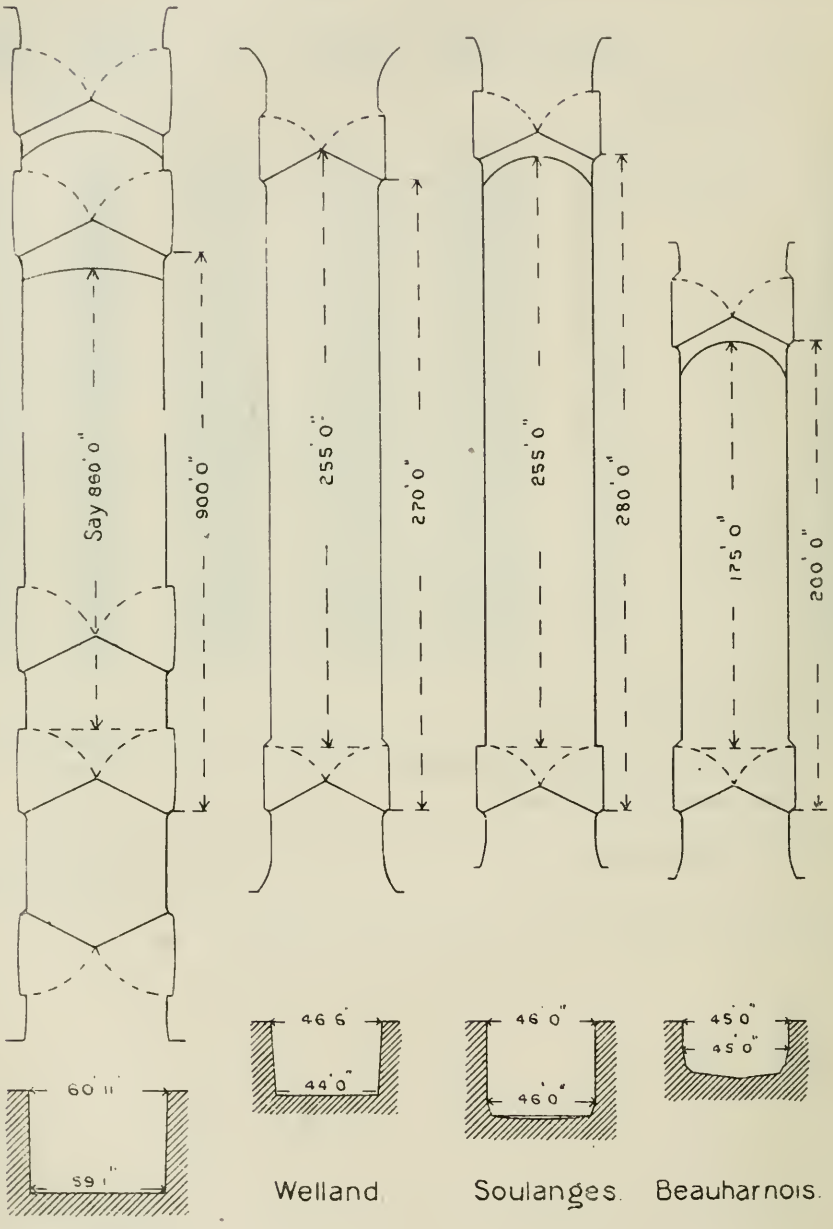
The following table shows the working expenses, the gross and net earnings, the tons of freight and number of persons carried each year since June 30, 1875, when the road was first opened for traffic :—

Year.	Miles in operation.	Working expenses.	Gross earnings.	Loss.	Tons of freight carried.	No. of passengers carried.
		$ cts.	$ cts.	$ cts.		
1875-76	199	214,930 43	118,060 96	96,869 47	28,358	93,964
1876-77	199	228,595 25	130,664 92	97,930 33	41,039	93,478
1877-78	199	221,599 49	135,899 60	85,699 89	38,668	111,428
1878-79	199	223,313 12	125,855 99	97,457 21	38,923	105,046
1879-80	199	164,640 55	113,851 11	50,789 44	37,208	90,533
1880-81	199	203,122 88	131,131 43	71,991 45	45,336	102,937
1881-82	199	228,259 97	137,267 54	90,922 43	48,315	118,436
1882-83	199	252,808 41	146,170 42	106,637 99	51,920	117,162
1883-84	199	236,428 13	144,504 12	91,924 01	51,841	118,988
1884-85	211	211,207 01	158,588 06	52,618 95	57,346	130,423
1885-86	211	216,744 34	155,584 36	61,159 98	57,913	120,374
1886-87	211	204,237 37	155,303 37	48,934 00	63,589	103,067
1887-88	211	229,639 95	158,365 62	71,276 33	59,603	131,246
1888-89	211	247,559 44	171,369 56	76,189 89	55,682	152,780
1889-90	211	266,485 85	160,971 78	105,514 07	51,604	133,099
1890-91	211	257,990 08	174,258 05	83,732 03	59,511	145,508
1891-92	211	289,706 38	157,442 69	132,263 69	51,065	139,389
1892-93	211	226,422 17	162,690 42	63,731 75	56,718	132,111
1893-94	211	226,891 06	158,533 83	68,857 23	53,577	123,727
1894-95	211	232,105 19	149,654 71	83,250 41	48,325	125,089
1895-96	211	225,138 56	146,476 54	78,662 02	46,395	122,586
1896-97	211	240,489 90	153,443 13	87,046 77	52,151	121,498
1897-98	211	231,418 74	158,950 61	72,468 13	57,539	126,510
1898-99	211	218,053 01	165,021 03	53,040 98	57,968	129,667
1099-1900	211	220,931 81	174,738 73	46,193 08	62,227	147,471
1900-01	211	261,766 24	193,883 48	67,883 76	73,696	157,793
1901-02	210	270,159 97	197,999 97	72,160 00	75,381	184,748

	Miles.
Steel rails (50 and 56 lbs. to yard)	180
Iron rails (40 lbs. to yard)	30
Total length of road	210

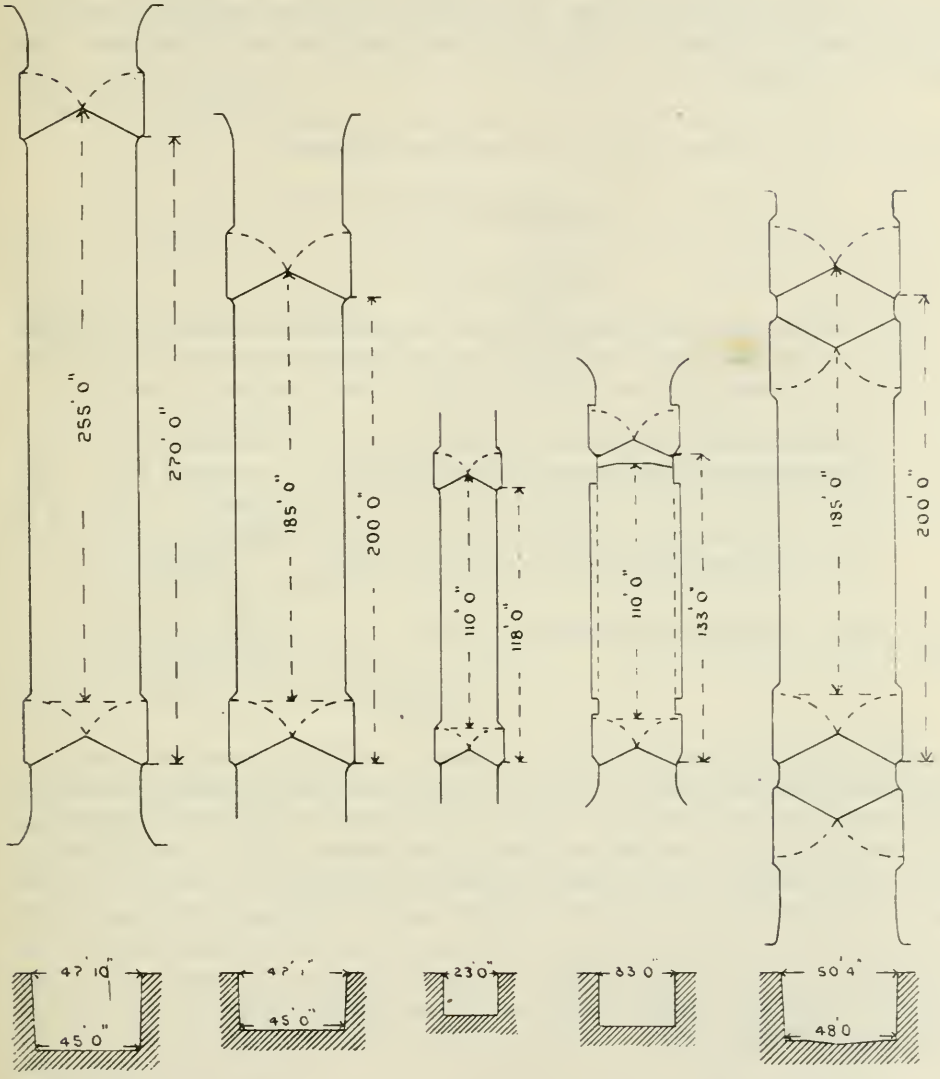
The road and rolling stock are in good running condition.

Plans and Sections showing the
on each of the Canadian Canal
Canal which is uncompleted.



There are no locks on the through
Montreal of less dimensions than

dimensions of the smallest lock Systems. Except the Trent



route between Lake Superior and those of the Welland Canal locks.

CANALS.

The preceding diagrams of the locks on the Lachine, Soulanges, Welland and Sault Ste. Marie canals practically give the key to the whole navigation between Montreal and Lake Superior. There are no locks to be passed of less dimensions than those of the Welland canal

The dimensions of the locks on the Beauharnois, Carillon, Grenville, St. Anne, Chambly, St. Ours, Rideau and St. Peter canals are also shown.

CONSTRUCTION.

SOULANGES CANAL.

This canal extends from Coteau Landing to Cascades Point, a distance of 14 miles.

The works of construction of this canal are now completed with the exception of the erection of workshops at Cascades Point, plans of which are being prepared.

Total expenditure up to June 30, 1901	$6,254,692 43
Expended during the year ended June 30, 1902	235,021 79
Total expenditure up to June 30, 1902	$6,489,714 22
Expended from June 30, 1902, to October 1, 1902	80,800 53
Total expenditure up to October 1, 1902	$6,570,514 75

SAULT STE. MARIE CANAL.

This canal is cut through St. Mary's Island ; it is $1\frac{1}{8}$ miles in length. The canal proper has a depth of 22 feet of water in the prism, with 20 feet 4 inches of water on mitre sill of the lock, at low water, which is equivalent to the depth on the American lock. The dredging out of the lower entrance for a depth of 21 feet 5 inches at low water, with a minimum width of 300 feet, has been completed this season. It now remains to treat the upper entrance in a similar manner, deepening the channel, which has only 18 feet at low water, to 21 feet 5 inches, and widening out the entrance to give safer passage for vessels approaching and departing from the canal. It is also found to be absolutely necessary to increase the length of the entrance piers at each end of the canal about 800 feet.

Total expenditure up to June 30, 1901	$4,093,025 60
Expended from June 30, 1901, to June 30, 1902	122,505 73
Total expenditure up to June 30, 1902	$4,215,531 33
Expenditure from June 30, 1902, to October 1, 1902	44,070 83
Total expenditure up to October 1, 1902	$4,259,602 16

TRENT CANAL.

This canal, when completed, is designed to extend from Trenton on the Bay of Quinte to the Georgian Bay on Lake Huron, at the mouth of the Severn River, the total distance being about 200 miles, of which 20 miles are canal and about 180 miles river and lake navigation.

The works now under contract are :—

Section 2 of the Peterboro-Lakefield Division is about 4 miles in length. Messrs. Corry & Laverdure are the contractors for the construction of this section, with the exception of the steel structure for the hydraulic lift. I am pleased to be able to report that Messrs. Corry & Laverdure's work is completed, and is a very creditable piece of work of which they have reason to be proud. The steel structure is now in course of erection by the Dominion Bridge Company of Montreal.

Section 1 of the Peterboro-Lakefield division is about 6½ miles in length. Messrs. Brown, Love & Aylmer are the contractors. The works are completed with the exception of a few hundred yards of dredging in the Otonabee River near Lakefield : the work is well done. Amongst other features it comprised 5 dams and 5 locks. These locks are constructed of concrete, and have a very neat, finished appearance.

The length of the Peterboro-Lakefield division is about 10½ miles.

Section 1.—Balsam-Simcoe division, Andrew Onderdonk, contractor. This section extends from Balsam Lake, 6 miles, to Kirkfield, a distance of about 6 miles. The work is completed and has been accepted.

Section 2 of the Balsam-Simcoe division. Messrs. Larkin & Sangster are the contractors for this section which is about 7½ miles long. Embraced in this contract is the construction of an hydraulic lift lock. The work is well advanced, the bulk of work remaining to be done being in the vicinity of the hydraulic lift lock, the construction of which is not yet commenced, but the entrance concrete walls and cross wall are built. The prism of the canal is practically completed and the abutments and piers of the several bridges are finished.

Section 3 of the Balsam-Simcoe division. Messrs. Brown & Aylmer are the contractors. The section is about 5½ miles in length and extends to Lake Simcoe. The work of constructing the piers and abutments of the several bridges is far advanced : the concrete work of one lock is completed, and is well advanced on a second lock. Considerable progress has been made in forming the prism of the canal, and a dredge is at work dredging out the entrance to the canal from Lake Simcoe.

The length of the Balsam-Simcoe division is about 19 miles. The following is a statement of the expenditure made on the construction of this canal from its commencement up to October 1, 1902.

Expenditure prior to June 30, 1867	$ 309,371 31
Expenditure subsequent to June 30, 1867 and June 30, 1894 (date of works now under contract	782,524 88
Expenditure from June 30, 1894, to June 30, 1901	2,070,431 18
Total expenditure up to June 30, 1901	$3,162,327 37
Expended from June 30, 1901, to June 30, 1902	449,075 45
Total expenditure up to June 30, 1902	$3,611,402 82
Expended from June 30, 1902, to October 1, 1902	110,526 60
Total expenditure up to October 1, 1902	$3,721,929 42

ENLARGEMENT.

LACHINE CANAL.

This canal extends from Montreal to Lachine, a distance of 8½ miles. The mitre sills of the locks have 14 feet of water upon them, the stone lining of the prism of the canal is still in progress, but it is slow work, as the major portion of it can only be done when the canal is unwatered in the spring, for about a month. The lower portion of this canal as far up as the St. Gabriel Basins is being dredged out to a depth of 20 feet below low water, so that large vessels can enter the several basins. The machinery for operating the lock gates, valves, and bridges by electricity is in course of construction, and it is confidently expected all will be in place and in working condition by the opening of navigation next spring :—

The total expenditure up to June 30, 1901 is	$8,419,876 09
Expended from June 30, 1901, to June 30, 1902	113,328 26
Total expenditure on enlargement up to June 30, 1902.	$8,533,204 35
Expended from June 30, 1902, to October 1, 1902	7,569 44
Total expenditure on enlargement up to Oct. 1, 1902.	$8,540,773 79

CORNWALL CANAL.

This canal extends from Cornwall to Dickenson's Landing, a distance of 11 miles. The works of actual enlargement are completed, the only work incidental thereto yet to be done is the strengthening of the bank and building protection wall and wharf at Cornwall, which is under contract with Mr. J. J. Fallon. The work is well advanced, and it is expected that it will be completed next season, when the canal is unwatered for spring repairs. The machinery for operating the lock weirs, valves, and bridges, and for moving vessels through the locks by electricity, is being placed in position, and at those of the new locks, valves and weirs where the work is completed they are being worked by electrical power and the results are most satisfactory. This work has been executed by Mr. M. P. Davis. It will be necessary to enlarge the regulating weir at

lock No. 17 to enable the water to be regulated in connection with the manufactories established along the line of the canal, which use water from the canal under lease.

Total expenditure on enlargement up to June 30, 1901.	$4,849,305 25
Expended from June 30, 1901, to June 30, 1902.....	90,535 18
Total expenditure on enlargement up to June 30, 1902..	$4,939,840 43
Expended from June 30, 1902, to October 1, 1902....	12,747 14
Total expenditure on enlargement up to Oct. 1, 1902...	$4,952,587 57

FARRAN'S POINT CANAL.

This canal extends from Farran's Point for a mile westward.

The work of enlargement, which was under contract with the Canadian Construction Co., is now completed :—

Total expenditure on enlargement up to June 30, 1901.	$ 797,804 77
Expended from June 30, 1901, to June 30, 1902.....	42,209 89
Total expenditure on enlargement up to June 30, 1902.	$ 840,014 66
Expended from June 30, 1902, to October 1, 1902....	2,434 25
Total expenditure on enlargement up to Oct. 1, 1902..	$ 842,448 91

RAPIDE PLAT CANAL.

This canal extends from Morrisburg westward $3\frac{2}{3}$ miles. The works of enlargement, with the exception of the widening of the upper entrance are completed, the latter work is being executed by Mr. P. H. Gilbert by contract. It is expected that they will complete it next spring :—

Total expenditure on enlargement up to June 30, 1901.	$1,966,301 28
Expenditure from June 30, 1901, to June 30, 1902...	137,818 22
Total expenditure on enlargement up to June 30, 1902..	$2,104,119 50
Expended from June 30, 1902, to October 1, 1902....	6,280 50
Total expenditure on enlargement up to Oct. 1, 1902...	$2,110,400 00

GALOPS CANAL.

Iroquois Section.—The enlargement of this section of the canal may be said to be practically completed ; only some minor items of work remaining to be done.

Cardinal Section.—The work of enlargement of this section, which was a heavy piece of work, is drawing to a close. Good progress has been made with it this season, but it will not be completely finished until next season.

Upper Entrance.—The works of enlargement on this section have progressed satisfactorily this season, and may be said to be about completed.

A wharf is no doubt a necessity for the accommodation of the business of Cardinal, and I suggest its construction be authorized.

Total expenditure on enlargement up to June 30, 1901	$4,528,749 43
Expended from June 30, 1901, to June 30, 1902	421,945 81
Total expenditure on enlargement up to June 30, 1902	$4,950,695 24
Expended from June 30, 1902, to October 1, 1902	146,843 79
Total expended on enlargement up to October 1, 1902	$5,097,539 03

WELLAND CANAL.

IMPROVEMENTS.

The Trunk Line extends from Port Dalhousie on Lake Ontario to Port Colborne on Lake Erie, a distance of $26\frac{3}{4}$ miles:—

Port Colborne Improvements.—This work is under contract with Messrs. Hogan and McDonnell. These gentlemen have a contract with the Public Works Department for the construction of a breakwater at this point, a work of great importance, to be completed at the earliest date possible; hence the works of improvement under contract with this department have been allowed to drag along slowly, to enable the contractors to apply their energies and resources to the completion of the breakwater. The consequence is, that the improvement works at the entrance to the canal are not as far advanced as might otherwise reasonably have been expected. The only mishap that has occurred in the carrying on of this work is the shifting of some cribs, from the pressure caused by the breaking away of the surface behind them. However, only two cribs will have to be taken out and replaced. Greater progress with this work is looked for next season, as the breakwater is so far advanced towards completion that it will not require the same amount of attention as has been bestowed upon it by the contractors during the past season. When this work is completed it will no doubt be greatly appreciated by those engaged in the business of transportation.

Lowering mitre sills of entrance lock at Port Colborne.—This work was executed by day's labour, and was very successfully carried through to completion under the direct supervision of the superintending engineer.

Total cost up to June 30, 1902	$14,998 10
Expended from June 30, 1902, to October 1, 1902	1,085 68
	$16,083 78

DEEPENING PORTIONS OF LONG LEVEL.

This work is under contract with Magan & Phin, who are progressing fairly well with it. There remains, however, considerable dredging yet to be done.

Expended up to June 30, 1902	$ 29,774 55
Expended from June 30, 1902, to October 1, 1902	29,435 16
Total expenditure up to October 1, 1902	$ 59,209 71

DEEPENING CANAL FROM PORT COLBORNE TO HUMBERSTONE.

This work is under contract with Messrs. Hogan & McDonnell. They are making good progress, and expect to have it completed by the opening of navigation next spring. It is all submarine rock excavation.

Expended up to June 30, 1902	$ 61,982 21
Expended from June 30, 1902, to October 1, 1902	4,360 00
Total expenditure up to October 1, 1902	$ 66,342 21

Total expenditure on the enlargement of this canal up to October 1, 1902, is as follows, including the amounts given for the above named works :—

Total expenditure on enlargement up to June 30, 1901	$16,320,515 98
Expended from June 30, 1901, to June 30, 1902	303,997 81
Total expenditure on enlargement to June 30, 1902	$16,624,513 79
Expended from June 30, 1902, to October 1, 1902	80,307 99
Total expenditure on enlargement up to Oct. 1, 1902	$16,704,821 78

GRENVILLE CANAL.

This canal extends from the town of Grenville towards Carillon a distance of $5\frac{3}{4}$ miles. Messrs. Piggott & Ingles, the contractors for the portion of the enlargement of this canal last undertaken, have completed their work.

The expenditure on this piece of work up to June 30, 1902, is as follows :—

To Messrs. Piggott & Ingles	$ 95,323 10
Engineering superintendence, &c	60,831 31
Total expended up to June 30, 1902	$ 156,154 41
Expended from June 30, 1902, to Oct. 1, 1902	Nil.
Total expenditure to Oct. 1, 1902	$ 156,154 41

The expenditure on the enlargement of this canal, including the above amount, is :—

Total expenditure up to June 30, 1901	$4,119,039 32
Expended from June 30, 1901, to June 30, 1902	Nil.
Total expenditure up to June 30, 1902	$4,119,039 32
Expenditure from June 30, 1902, to Oct. 1, 1902	Nil.
Total expenditure on enlargement up to Oct. 1, 1902	$4,119,039 32

ST. LAWRENCE RIVER AND LAKE IMPROVEMENTS.

LAKE ST. LOUIS.

The channel cut through this lake is 2 miles long, 300 feet wide, with 17 feet of water at low tide. The channel, since it was formed, has given good satisfaction. Only a small amount of work has been done upon it since my last year's report. Surveys and soundings have been taken over the lake, and a chart is being prepared.

Expended up to June 30, 1901	$ 274,750 49
Expended from June 30, 1901, to June 30, 1902	6,000 00
Total expenditure to June 30, 1902	$ 280,750 49
Expended from June 30, 1902, to Oct. 4, 1902	3,165 97
Total expenditure up to Oct. 1, 1902	$ 283,916 46

LAKE ST. FRANCIS.

The following named shoals have been cut through, and channels formed, for 14 feet navigation : first, St. Regis bar, 2½ miles east of Cornwall ; the Hamilton Island channel, about 8 miles east of Cornwall; the Clark's Island shoal, 7½ miles east of Cornwall; the Middle Ground, 10 miles east of Cornwall ; the Highland shoal, 10½ miles east of Cornwall. These shoals were removed, and channels made, by Messrs. Manning & McDonald, contractors. The work is completed, and final estimates are being prepared.

Total expenditure up to June 30, 1901	$ 56,961 46
Expenditure from June 30, 1901, to June 30, 1902	13,945 25
Total expenditure up to June 30, 1902	$ 70,906 71
Expended from June 30, 1902, to Oct. 1, 1902	5,000 00
Total expenditure up to Oct. 1, 1902	$ 75,906 71

GALOPS RAPIDS.

A channel 3,000 feet long, 200 feet wide and 17 feet deep was cut through the upper bar, North Caledonia shoals, Island shoal, and lower bar. It was, owing to the rapid current, a very difficult piece of work of execution. It consisted of subaqueous rock blasting and dredging. To make navigation safe it is necessary that the rock blasted should be removed.

Total expenditure up to June 30, 1902	$ 854,404 00
Expended from June 30, 1901, to June 30, 1902	24,037 85
Total expended to June 30, 1902	$ 878,441 85
Expended from June 30, 1901, to Oct. 1, 1902	Nil.
Total expenditure up to Oct. 1, 1902	$ 878,441 85

NORTH CHANNEL.

This channel is about $2\frac{1}{3}$ miles in length, 300 feet wide, with 16 feet of water at low water. It commences about one mile west of the upper entrance to the Galops Canal, and runs in a direct line to deep water off Chimney Point. The work comprises the building of a dam from Adams Island to Ogden Island. The work has been prosecuted with vigour during the year, and it is confidently expected that the whole will be completed next season.

Total expenditure up to June 30, 1901	$1,043,106 49
Expended from June 30, 1901, to June 30, 1902	125,000 00
Total expenditure up to June 30, 1902	$1,168,106 49
Expended from June 30, 1902, to Oct. 1, 1902	26,191 06
Total expenditure up to Oct. 1, 1902	$1,194,297 55

ST. LAWRENCE RIVER AND CANALS.

The buoying and lighting of the route between Montreal and Prescott, which was formerly done jointly by the Marine and Fisheries Department and this department, has all been placed under the charge of the former department, a course which it is believed will enure to the advantage of those navigating this deep water channel. Surveys have been made during the year of portions of the channel, with the view of locating shoals which it might be advantageous to cut a way through, in order to straighten and improve the present deep water channel.

Total expenditure up to June 30, 1901	$ 402,751 11
Expended from June 30, 1901, to June 30, 1902	29,268 64
Total expended up to June 30, 1902	$ 432,019 75
Expended from June 30, 1902, to Oct. 1, 1902	2,817 35
Total expenditure up to Oct. 1, 1902	$ 434,837 10

To summarize, I may state the cost of construction and enlargement of the canals and improvements to the rivers and lakes up to June 30, 1902, to be as follows, viz.: —

ROUTE FROM MONTREAL TO PORT ARTHUR.

	Original construction of Canals.	Enlargement of Canals.	Improvements to St. Lawrence River and Lakes.	Total Expenditure.
Lachine Canal	2,589,532 85	8,533,204 35		11,122,737 20
Lake St. Louis			280,750 49	280,750 49
Soulanges Canal	6,489,714 22			6,489,714 22
Lake St. Francis			70,906 71	70,906 71
Cornwall Canal	1,945,624 73	4,939,840 43		6,885,465 16
Williamsburg Canals:	1,320,655 54	2,486 63		
Farran's Point		840,014 66		
Rapide Plat		2,104,119 50		9,217,971 57
Galops		49,500,695 24		
Galops Rapids			878,441 85	
River Reaches			659,428 48	2,705,976 82
North Channel			1,168,106 49	
Murray Canal	1,247,470 26			1,247,470 26
Welland Canal	7,693,824 03	16,624,513 79		24,318,337 82
Sault Ste Marie	4,215,531 33			4,215,531 33
Total	25,502,352 96	37,994,874 60	3,057,634 02	66,554,861 58

If to the above total there is added the cost, $1,636,690.26, of the Beauharnois Canal, now not required for navigation, the total expenditure is $68,191,551.79.

SESSIONAL PAPER No. 20

ROUTE FROM LACHINE TO OTTAWA.

—	Original Construction.	Enlargement.	Total.
	$ cts.	$ cts.	$ cts.
Ste. Anne's Lock	134,456 51	1,035,759 12	1,170,215 63
Carillon and Grenville Canals	63,053 64	4,119,039 32	4,182,092 96
Total	197,510 15	5,154,798 44	5,352,308 59

* Construction by Imperial Government not included : records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

ROUTE FROM OTTAWA TO KINGSTON.

—	Original Construction.	Enlargement.
	$ cts	$ cts.
Rideau Canal	4,084,323 37	
Tay Canal	489,599 23	
Total	4,573,922 60	

ROUTE FROM ST. JOHNS, P.Q., TO SOREL.

—	Original Construction.	Enlargement.
	$ cts.	$ cts.
Chambly Canal	637,056 76	
St. Ours Lock	121,537 65	
Total	758,594 41	

ROUTE FROM TRENTON TO GEORGIAN BAY.

—	Original Construction.	Enlargement.
	$ cts.	$ cts.
Trent Canal	3,611,402 82	
Total	3,611,402 82	

ROUTE FROM ATLANTIC OCEAN TO BRAS D'OR LAKES.

—	Original Construction.	Enlargement.
	$ cts.	$ cts.
St. Peter's Canal—Cape Breton	248,762 84	399,784 30
Total	248,762 84	399,784 30

The Culbute canal has been abandoned and the Beauharnois canal is no longer required for navigation purposes but has to be maintained as a power canal.

The construction of these two canals cost :—

Culbute	$ 382,776 46
Beauharnois canal	1,636,690 26
Total	$ 2,019,466 72

MAINTENANCE AND OPERATION.

LACHINE CANAL.

Operation.

No interruption occurred to the traffic through this canal during the year. The steamer *Ocean*, however, in passing up struck the upper gates of old lock No. 1, knocking them out. During the time the repairs were being made all the traffic was passed through the new locks. Shortly after this such serious breaks occurred in old locks 1 and 2, that they have had to be closed to navigation and cannot be opened until the extensive repairs which are necessary are done.

Maintenance.

The repairs referred to above in old locks Nos. 1 and 2, will be proceeded with this season and carried through with all speed to completion, so as to make these locks available for traffic at the earliest possible date.

The cost of repairs made during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs		$ 45,853 97
Special repairs under income—		
Renewing masonry wall, basin No. 2	7,437 50	
Proportion of cost of paving Mill St	20,417 71	
To build bridges over waste weirs	3,399 57	
Macadamizing road from Cote St. Paul	2,499 92	
To repair tug *Frank Peru*	2,494 32	
		36,249 02
		$82,102 99

SOULANGES CANAL.

Operation.

This canal has been most successfully operated during the year, the electrical machines for working the lock gates, valves and bridges having proved thoroughly

efficient, and no delay in the traffic having occurred. The volume of traffic passing through the canal during the current year is much less than that for the season 1901, owing, in a large measure, to the strike of the labourers at the American coal mines, which stopped the coal supply.

Maintenance.

The cost of repairs made during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 2,267 13
Special repairs under the head of income	Nil.
Total	$ 2,267 13

CORNWALL CANAL.

Operation.

The traffic on this canal was interrupted for three days by reason of the gates of lock No. 17 having been carried away on July 31, 1901, by the steam barge *Hebron*.

It is proposed to have the machinery for operating all the lock gates, valves, weirs, and bridges, and the passing of vessels through the gates, by electricity, in operation during the present season of navigation. The canal is well lighted by electricity throughout, which gives great satisfaction to the transportation companies using the canal.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 15,045 95
Special repairs under the head of income	Nil.
Total	$ 15,045 95

WILLIAMSBURG CANALS.

Operation.

These canals are composed of the Farran's Point, Rapide Plat, and Galops canals. These canals were operated during the year without interruption to navigation.

Maintenance.

The cost of repairs during the year ended June 30, 1902, was as follows :—

Ordinary repairs under the head of staff and repairs	$ 13,673 26
Special repairs under the head of income	Nil.
Total	$ 13,673 26

WELLAND CANAL.

Operation.

The navigation was only once interrupted during the year, the delay being, in that case, caused by the upbound steamer *Prince*, on September 14, 1901, carrying away the upper gates of lock No. 13. The spare gates were at once stepped: navigation was interrupted for 20 hours only.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows:—

Ordinary repairs under the head of staff and repairs		$ 69,279 90
Special repairs under the head of income—		
Remodelling regulating weirs, valves and gates at Port Colborne	$ 7,541 70	
Executing heavy repairs	29,328 18	
Rebuilding Marlett's bridge	1,754 63	
Carrying out east drainage at Port Colborne	1,986 00	
Raising walls of old canal locks	6,837 37	
Strengthening wall at lock 24, old canal	1,836 22	
Rebuilding dam and bridge at Dunnville	6,820 70	
Renewing docking below lock No. 1	22,800 57	
		78,905 37
Total		$ 148,185 27

SAULT STE. MARIE CANAL.

Operation.

This canal was operated sucessfully, and without interruption to navigation, due to damage done by vessels, but in September last the lower main gates gave way, and the canal was closed down whilst the new gates were being stepped.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows:—

Ordinary repairs under the head of staff and repairs	$ 14,839 71
Special repairs under the head of income	Nil.
Total	$ 14,839 71

CHAMBLY.

Operation.

The navigation was interrupted on this canal on July 4, 1901, owing to the sill of lock No. 3 giving way, which caused a delay to navigation for nine hours whilst repairs were being made.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs		$ 17,313 02
Special repairs under the head of income—		
Rebuilding culvert at Little Iroquois River	$ 2,255 10	
Taking down and rebuilding portions of walls, lock 9	6,880 76	
Drainage works at St. Johns	9,996 94	
		19,132 80
Total		$ 36,445 82

ST. OURS LOCK AND DAM.

Operation.

There was no interruption to navigation on this canal during the year.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs		$ 984 36
Special repairs under the head of income—		
Rebuilding 2 piers above dam	$ 1,280 12	
Rebuilding 2 pairs of lock gates	4,478 65	
Building shed for 2 lock gates	290 50	
Rebuilding dam	9,500 00	
		15,549 27
Total		$ 16,533 63

STE. ANNE'S LOCK.

Operation.

No interruption occurred to navigation on this lock during the year.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 3,015 97
Special repairs under the head of income	Nil.
Total	$ 3,015 97

CARILLON AND GRENVILLE CANAL.

Operation.

This canal was operated without interruption to navigation during the year.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 19,366 30
Special repairs under the head of income—	
Rebuilding guide pier	16,998 69
Total	$ 36,364 99

BEAUHARNOIS CANAL.

Operation.

This canal is practically closed to navigation, it being only used by a few market boats for local business. Unless heavy repairs are made upon it, it will fall entirely into disuse for navigation.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 6,532 33
Special repairs under the head of income	Nil.
Total	$ 6,532 33

MURRAY CANAL.

Operation.

There was no interruption to navigation on this canal during the year.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs	$ 6,377 19
Special repairs under the head of income	Nil.
Total	$ 6,377 19

RIDEAU CANAL.

Operation.

This canal was operated during the year without interruption to navigation.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs		$ 33,959 86
Special repairs under the head of income—		
Rebuilding bridge at Manotick	$ 4.996 36	
Rebuilding waste weir at Kingston Mills	2,998 04	
Purchase of new boiler for dredge *Rideau*	900 00	
		8,894 40
Total		$ 42,854 26

TRENT CANAL.

Operation.

No interruption occurred to navigation during the year ended June 30, 1902. The tourist travel on the line of the Trent canal was very considerable during the heated season, the lakes north of Peterboro' having become a favourite resort for Americans.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows :—

Ordinary repairs under the head of staff and repairs		$ 14,984 88
Special repairs under the head of income—		
Building 4 sluices at Healey's Falls	$ 4,885 27	
Rebuilding lock gates at Hastings	1,499 80	
Rebuilding dam at Peterboro	7,015 00	
Dredging shoals on Trent and Otonabee Rivers	3,995 14	
Buoying channel between Peterboro' and Lakefield	770 72	
Towards building bridge over Chemong River	8,000 00	
		26,165 93
Total		$ 41,150 81

ST. PETER'S CANAL.

Operation.

This canal was operated during the year ended June 30, 1902, without interruption to navigation.

Maintenance.

The cost of repairs during the year ended June 30, 1902, is as follows:—

Ordinary repairs under the head of staff and repairs		$ 274 44
Special repairs under the head of income—		
Renewing crib retaining wall,	$ 792 16	
In full settlement with J. O'Donohue	9,222 27	
		10,014 42
Total		$ 10,288 87

SUMMARY.

Cost of maintenance and operation of the canal system for the year ended June 30, 1902	$ 647,377 53
Net revenue of canals after deducting refunds	300,413 68
Excess of cost of maintenance and operation over revenue	$ 346,963 85

STATEMENT showing the number of Vessels and the Tonnage which passed through the Canals during the year.

Name of Canal.	No. of Passages of Vessels.	Tonnage.
Lachine	8,415	1,962,339
Soulanges	2,990	843,413
Cornwall	2,505	229,631
Farran's Point		
Rapide Plat		
Galops	909	
Murray	850	223,332
Welland	1,547	805,580
Sault Ste. Marie	4,820	3,078,440
St. Anne's	728	107,949
Carillon	57	5,361
Grenville	439	47,522
Chambly	1,149	110,110
St. Ours	378	69,461
Beauharnois	75	7,934
Rideau	2,514	164,269
Trent	2,012	100,165
St. Peter's	1,745	120,750

STATEMENT showing the dates of the closing and opening of the Canals.

	1901.	1902.
	Closed.	Opened.
Lachine	Nov. 30	May 1
Soulanges	" 27	" 1
Cornwall	" 30	" 1
Farran's Point	" 30	" 1
Rapide Plat	" 30	" 1
Galops	" 30	" 1
Murray	" 30	April 4
Welland	Dec. 15	" 20
Sault Ste. Marie	" 21	" 1
St. Anne's	Nov. 28	" 22
Carillon and Grenville	" 30	" 28
Chambly	" 30	May 1
St. Ours	" 30	April 7
Beauharnois	" 30	Not regularly open for traffic
Rideau	" 18 (Kingston) / Nov. 25 (Ottawa)	May 1
Trent	" 20	April 9
St. Peter's	Jan. 29, 1902	" 9

RAILWAY SUBSIDIES.

The subsidies voted for railways are in such a form that it is not possible to show the amount of cash subsidy granted, as the amount of sudsidy will, in many cases, be based upon the cost of each road. For this reason, I am again, this year, unable to give the amount of each subsidy available, but, as heretofore, I shall show the amount paid; also the number of miles of railway for which subsidy granted per mile, was available on July 1, 1901, and the number of miles of railway built up to July 1, 1902, for which cash subsidy per mile was granted. There will also be found the amount of subsidy per annum paid up to July 1, 1902, with the number of miles built. Also a statement showing the railways to which subsidies have been granted aid in land.

Amount of cash subsidy per mile paid up to July 1, 1902	$23,478,475 17
Number of miles of railway on which cash subsidy per mile was paid up to July 1, 1902	4,374·57
Amount of cash subsidy per mile paid up to October 1, 1902	23,951,622 27
Cash subsidy per annum paid to July 1, 1902	2,425,800 00
Number of miles built on each subsidy, per annum to July 1, 1902	252
Number of miles of railway to which aid in land has been authorized	2,937
Number of acres of land, the grant of which in aid of railways has been authorized	21,518,144

The foregoing statements do not include the grants in cash and land to the Canadian Pacific Railway, the Canada Central Railway and the Esquimault & Nanaimo Railway.

These roads, as previously reported, received in cash as follows :—

Canadian Pacific Railway (mileage, 1905)	$25,000,000
Canada Central Railway (mileage, 120)	1,525,250
Esquimault & Nanaimo Railway (mileage, 71)	750,000
Total	$27,275,250

For land as follows :—	Acres.
Canadian Pacific Railway	25,000,000
Esquimault & Nanaimo Railway	1,900,000
Total	26,900,000

RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The report of the secretary of the Railway Committee of the Privy Council, herewith, enumerates the cases which have been before the committee during the twelve months from October 1, 1901, to October 1, 1902. Within the period above named there were fourteen meetings of the railway committee as follows :—

November 6, 1901.	March 7, 1902.
November 7, 1901.	March 26, 1902.
November 27, 1901.	April 12, 1902.
November 28, 1901.	April 23, 1902.
December 19, 1901.	May 21, 1902.
February 21, 1902.	June 6, 1902.
March 6, 1902.	June 9, 1902.

The character of the business before them was :—

1. For permission to make highway crossings over railways.
2. For permission for one railway to cross another.
3. For permission for one railway to form a junction with another.
4. For permission for railways to cross and run along streets and highways.
5. For approval of plan and proposed site of bridges over navigable water.
6. For permission to use crossings and junctions before installation of interlocking appliances.
7. For permission to construct branch lines.
8. For running powers of one railway over another.
9. For protection of streets and highways crossed by railways.
10. For permission to change location of sections of railways.
11. For approval of rules and regulations of railways.
12. For permission to close streets and highways and to divert them.

CANAL STATISTICS.

These statistics are for the season of 1901, they have as usual been prepared by Mr. R. Devlin, the officer in charge of the Canal Statistics Office.

Table showing the tons of freight passing through each canal, the toll collected and the number of trips of vessels passing through each canal for the season ended December, 1901.

Name of Canal.	Tons of freight passed through.	Amount of tolls collected.	No. of trips of vessels passing through.
		$ cts.	
Welland	620,209	86,760 48	1,547
St. Lawrence	1,208,296	97,276 90	9,025
Chambly	359,798	24,864 52	2,777
Ottawa	445,862	25,627 19	1,821
Rideau	56,376	4,114 44	2,514
St. Peter's	88,257	3,299 12	1,745
Trent	36,532	1,063 24	2,011
Murray	29,535	1,049 20	850
Sault Ste. Marie	*2,820,394	Free.	4,204

NOTE.—* This canal was opened for traffic on September 9, 1895.

GENERAL REMARKS.

For details as regards the subjects treated in this report, I refer you to the reports of the officers in charge of the government railways and canals which form appendices hereto.

The Summary of Tables of Steam Railways for the Years ended June 30, 1901, and June 30, 1902.

	Comparative Statement.	
	June 30, 1901. Steam Railways only.	June 30, 1902. Steam Railways only.
	$	$
Miles of railway completed (track laid)	18,294	18,868
" siding	2,710	2,829
" iron rails in main line	110	107
" steel "	18,184	18,761
" " " (double track)	634	647
Capital paid (including the 4 following items)	1,042,785,539	1,098,852,206
Government (Dominion & Provincial) bonuses paid	177,640,765	185,182,371
" " loans paid	20,613,489	20,613,214
" (Provincial only) subscriptions to shares paid	300,000	300,000
Municipal, aid paid	16,310,253	16,465,604
Miles in operation	18,140	18,714
Gross earnings	72,898,749	83,666,503
Working expenses	50,368,726	57,343,592
Net earnings	22,530,023	26,322,911
Passengers carried	18,385,722	20,679,974
Freight carried (tons)	36,999,371	42,376,527
Train mileage	53,349,394	55,729,856
Passengers killed	16	19
Number of elevators	253	275
" guarded level crossings—public roads	193	205
" unguarded level " "	12,422	12,749
" overhead bridges	427	452
" public roads under crossings	280	175
" level crossings of other railways	233	244
" junction with other railways	347	365
" " branch lines	230	224
" engines owned	2,316	2,344
" " hired	117	100
" sleeping and parlour cars owned	243	268
" " " hired	15	13
" first class cars owned	1,087	1,117
" " hired	72	49
" second class and immigrant cars owned	636	562
" " " hired	13	11
" baggage, mail and express cars owned	729	657
" " " hired	86	24
" refrigerator cars owned	728	786
" " hired	273	271
" cattle and box freight cars owned	42,166	45,291
" " " hired	3,738	3,499
" platform cars owned	15,773	15,298
" " hired	575	536
" coal and dump cars owned	6,557	7,500
" " hired	218	236
" conductors' vans owned	1,019	1,118
" " hired	21	24
" tool cars owned	*948	*1,009
" " hired	7	5
" snow ploughs owned	301	308
" " hired	3	5
" flangers owned	320	302
" " hired	3	2
Included in the above there are the following :—		
Number of cars with air-brakes owned	48,072	54,201
" " " hired	4,342	3,910
" cars with automatic couplers owned	56,423	62,456
" " " hired	4,711	4,426

*Including steam shovels, pile drivers, water tank cars, store cars, gravel cars, boarding cars, &c.

SESSIONAL PAPER No. 20

SUMMARY of Tables of Electric Railways for the year ended June 30, 1901, and June 30, 1902.

	Comparative Statement.	
	June 30, 1901.	June 30, 1902.
Miles of railway completed (track laid)	675	558
" siding	14	26
" iron rails in main line	5	5
" steel " "	670	553
" " " double track	158	169
Capital paid (including the two following items)	$39,076,019	$41,593,064
Government (Dominion) bonuses paid	....	$60,800
Municipal aid paid	.....	$173,000
Miles in operation	672	557
Gross earnings	$5,768,283	$6,486,438
Working expenses	$3,435,163	$3,802,855
Net earnings	$2,333,120	$2,683,583
Passengers carried	120,934,656	137,681,402
Freight carried (tons)	287,926	266,182
Car mileage	31,750,754	35,833,841
Passengers killed	3	8
Number of guarded level crossings, public roads	17	9
" unguarded " "	247	226
" overhead bridges	20	16
" public roads under crossings	.....	9
" level crossings of other railways	74	89
" junctions with "	24	37
" " branch lines	8	8
Power-houses (steam power) owned	30	25
" (") hired	.....	2
" (water power) owned	11	12
" (") hired	.....	1
Number of passenger cars (motor) owned	1,728	1,900
" " (trailers) "	291	289
" " " hired	8	2
" locomotives—owned	8	2
" baggage, mail and express cars—owned	13	13
" cattle and box freight cars—owned	7	6
" platform cars—owned	56	65
" tool cars—owned	7	11
" snow ploughs—owned	16	23
" snow sweepers—owned	62	63

I have the honour to be, sir,
Your obedient servant,

COLLINGWOOD SCHREIBER,
Deputy Minister and Chief Engineer of Railways and Canals.

The Honourable A. G. BLAIR,
Minister of Railways and Canals.

No. 1.

RAILWAYS

Intercolonial Railway of Canada,
Office of the General Manager,
Moncton, N.B., October 2, 1902.

Sir,—I have the honour to submit the following report on the working of the Intercolonial Railway during the fiscal year ended June 30, 1902.

I inclose the report of the chief engineer on the works charged to capital account, the report of the general superintendent and of the engineer of maintenance on the repair and renewals of the permanent way, buildings and works, and the report of the mechanical accountant with the statements relating to the mechanical department, also the following statements of the accounts of the railway prepared by the chief accountant and treasurer :—

No. 1. Capital Account.
2. Revenue Account.
3. Locomotive Power.
4. Car Expenses.
5. Maintenance of Way and Works.
6. Station Expenses.
7. General Charges.
8. Special Votes.
9. General Stores.
10. General Balance.
11. Comparative Statement of Averages.

The length of railway in operation during the year was the same as last year, 1,314·67 miles.

CAPITAL ACCOUNT.

The total cost of road and equipment on June 30, 1901, was $63,640,028.75.

The additions during the year were as follows :—

To increase accommodation at Halifax	$ 71,928 48
To dredge and blast rock at Halifax	25,977 82
To complete highway bridge at Rocky Lake	1,941 22
To increase accommodation at Stellarton	20,488 98
Improvements at Mulgrave	15,085 72
Improving the ferry service at Strait of Canso	293,000 00
To increase the accommodation at Sydney	77,609 99
To raise Sydney and Louisburg Railway bridge over I.C.R. at Sydney	10 50
Towards building sea-wall in Cape Breton	7,939 53

Increased accommodation at Pictou	$	42,661 65
Improvements at Westchester		4,653 58
Land damages at subway at Amherst		452 68
To extend blacksmith shop at Moncton		675 57
Buildings and appliances for making Pintsch gas		14,999 23
To increase accommodation at St. John		111,299 00
Station and freight house, Eel River		1,554 90
Improvements at St. Octave		4,318 44
To increase accommodation at Lévis		75,341 09
Station at Nicolet		46 54
Original construction		949 21
Land damages, Oxford and New Glasgow and Cape Breton Divisions		602 84
To strengthen bridges		93,431 14
To provide new superstructure for six spans Miramichi bridge		71,960 90
Steel rails and fastenings		188,190 61
To provide additional sidings along line		157,998 48
To provide additional snow fences along line		4,975 85
To provide nine electric and four mechanical semaphores		2,449 99
To increase accommodation and facilities along line		92,604 67
Increased facilities along line		10,354 44
To build new and enlarge old engine houses		135,049 11
To provide large turntables		4,908 23
To provide drop pits		2,331 05
To provide new tools and machinery for locomotive and car shops		53,985 87
Rolling stock		2,066,879 38
To provide Master Car Builders couplers for locomotives		2,979 76
To change car couplers of passenger cars		1,315 00
To equip passenger cars with vestibules		3,539 69
To equip ten passenger cars with Pintsch gas apparatus		943 34
To provide air-brakes for freight cars		23,688 75
To exchange drawbars of freight cars		15,000 00
To pay G. S. Mayes amount of claim for work done on Intercolonial Railway at Pictou in 1886		8,939 39
Award of arbitrators in connection with Eastern Extension Railway, Nova Scotia		671,836 00
Award of arbitrators in connection with Eastern Extension Railway, New Brunswick		280,692 18
Balance of purchase money, Drummond County Railway		5,000 00
Total	$	4,670,590 80
Making the total cost on June 30, 1902	$	68,310,619 55

To provide new tools and machinery for locomotive and car shops.

This is for additional tools and machinery of the latest and most improved design and of great strength and capacity, to facilitate the repairs of locomotives and of cars.

Rolling stock.

Thirty-two locomotives were purchased, twenty-eight of these were heavy consolidation engines for freight service, and four were heavy six-wheeled shunting engines. Six second class sleeping cars, three dining cars, one official car, five combined postal and express cars, five baggage cars, twenty stock cars, and thirteen hundred and two box freight cars were purchased.

To provide Master Car Builders couplers for locomotives.

This is to change the couplers from the old link and pin coupler so that the couplers shall be of the same kind that all railways are applying to cars. One hundred and thirty-two locomotives were provided with these couplers.

To change car couplers of passenger cars.

This is a change made necessary by the joint action of all other railways in Canada and the United States, adopting a standard coupler called the Master Car Builders coupler. In order that our cars could be exchanged with other railways it was necessary for the Intercolonial to make the change from the Miller coupler in use, to the M.C.B. coupler, and this change was made on eighty-one cars.

To equip passenger cars with vestibules.

Vestibules add so much to the comfort of passengers that they are now considered to be almost a necessity. Three cars were so equipped.

To equip ten passenger cars with Pintsch gas apparatus.

This is an improved mode of lighting which is in general use. The total number of cars changed from lighting by oil to lighting by gas is six.

To provide air brakes for freight cars.

This is a continuation of a work that has been carried on for some years. It is necessary in order to comply with the law of the United States, which requires that all freight cars going into that country, shall be fitted with such brakes. There still remain four thousand one hundred and twenty-one cars to be equipped.

To exchange draw bars of freight cars.

This work has been going on for some time. It is necessary in order to comply with the law in the United States, which requires all cars used in that country to be fitted with the M.C.B. coupler. There still remain three thousand nine hundred and forty-six cars to be changed.

In regard to the other expenditures on capital account, the information will be found in the report of the Chief Engineer.

REVENUE ACCOUNT.

The gross earnings and the working expenses for the year compare as follows :

Gross earnings	$ 5,671,385 91
Working expenses	5,574,563 30
Net earnings	$ 96,822 61

The gross earnings compare as follows with those of the previous year :—

In 1901–2	$ 5,671,385 91
In 1900–1	4,972,235 87
Increase	$ 699,150 04

The earnings from passenger traffic compare as follows :—

In 1901–2	$ 1,770,941 13
In 1900–1	1,607,166 79
Increase	$ 163,777 34

The earnings from freight traffic compare as follows :—

In 1901–2	$ 3,644,513 42
In 1900–1	3,121,006 15
Increase	$ 523,507 27

The earnings from mails and express freight compare as follows :—

In 1901–2	$ 255,931 36
In 1900–1	244,062 93
Increase	$ 11,868 43

The earnings by mile of railway compare as follows :—

In 1901–2	$ 4,313 92
In 1900–1	3,782 11
Increase	$ 531 81

The earnings by train mile compare as follows :—

	Cents.
In 1901–2	93·46
In 1900–1	79·39

The number of passengers carried compare as follows :—

In 1901–2	2,186,226
In 1900–1	2,025,296
Increase	160,930

Of this increase 155,597 were local passengers and 5,334 were through passengers.

The weight of freight carried compares as follows :—

	Tons.
In 1901–2	2,385,816
In 1900–1	2,111,310
Increase	274,506

There was an increase in local freight of 280,880 tons, and a decrease in through freight of 6,374 tons.

The following is a comparative statement of a few of the chief articles of freight showing the quantity carried in this and in the previous year :—

Articles.	1900-1.	1901-2.	Increase.	Decrease.
Barrels of flour and meal	1,292,106	1,311,707	19,601	
Bushels of grain	3,535,364	2,959,761		575,603
Lumber in superficial feet	396,858,964	428,051,029	31,192,065	
Head of live stock	95,923	98,495	2,572	
Coal in tons	506,590	571,214	64,624	
Manufactured goods in tons	476,528	531,180	54,652	
Cords of firewood	69,024	60,892		8,132
All other articles in tons	289,519	418,729	129,210	

There was an increase over last year in the quantity of the following articles carried :—Flour, bran, shorts and middlings, barley, potatoes, hay and straw, butter and cheese, eggs, calves, horses, horned cattle, boards, deals and scantlings, logs, cedar poles, masts and spars, railway ties, shingles, extract of hemlock bark, coal, ore, stone, lime and cement, iron and other metals, fresh fish, dried fish, canned fish, oysters, molasses, sugar, salted pork, fresh beef, mutton and lamb, hides and skins.

There was a decrease in the quantity of the following :—Oats, wheat, rye and buckwheat, meal, beans and peas, turnips, beets and carrots, pigs, sheep, square timber, tan bark, clap-boards, laths and palings, cordwood, bricks, sand, salted fish, fresh pork, salted beef, leather.

WORKING EXPENSES.

The working expenses compare as follows with the previous year :—

In 1901-2	$5,434,563 30
1900-1	5,320,422 64
Increase	114,140 66

The averages compare with those of last year as follows :—

	Cents.
Per mile run by engines—	
In 1901-02	71·17
1900-01	67·26
Per mile run by trains—	
In 1901-2	89·56
1900-1	84·95
Working expenses per mile of railway—	
In 1901-2	$4,133 78
1900-1	4,046 96

The rent paid to the Grand Trunk Railway Company is not included in the above, as it would disturb the comparison with previous years, no corresponding charge relating to the cost of any portion of the railway having been included in the working expenses in previous years.

The permanent way and structures and all the works of the railway received necessary repairs and are in good order.

The number of ties renewed was 557,393. Three hundred and thirty-five sets of switch ties were also renewed.

Ninety-five and a half miles of track were reballasted, 143,962 cubic yards of gravel being used.

Bridges, culverts, wharfs and buildings received necessary repairs.

At Trois Pistoles a combined passenger station and freight house was built in place of one destroyed by fire.

At Coal Branch a combined station house and freight house was built to replace a building destroyed by fire.

At Chaudière Junction a large freight house for through freight was built to replace that destroyed by fire last year.

The fences were repaired and eighty-three and a half miles of new fences were built.

The snow sheds and snow fences were repaired.

The rolling stock received necessary repairs and is in good order.

Six large ten-wheeled passenger locomotives were purchased to maintain the stock, also one six-wheeled locomotive for shunting. These replaced an equal number of smaller ones taken out of service.

Thirty-four box freight cars, twenty-one platform cars and six large coal cars were built in the Moncton shop to replace cars of less capacity which were taken out of service.

STORES.

The value of stores purchased was	$ 2,421,480 64
The value of stores used was	3,132,258 66
The value of material sold was	218,640 15

The value of stores on hand at the end of the year was:—

Miscellaneous	$ 361,733 53
Fuel	253,994 20
Track materials	505,557 50
Iron and steel rails	414,091 97
Total	$ 1,535,377 20

GENERAL.

The weather during the summer and autumn of 1901 was very dry and forest fires were frequent. A number of fires occurred by which railway property was destroyed.

On June 20, 1901, a portion—about five hundred feet in length—of the snow shed, three miles east of St. Arsene station was burned. This shed caught fire again on July 29, 1901, and a length of four hundred feet was burned. The origin of these fires is not known.

On September 6, 1901, the snow shed one and half miles from Kempt station caught fire from a forest fire. Three hundred and fifty feet of this shed, one hundred and fifty feet of snow fence and two hundred ties were burned.

On September 28, 1901, the station and freight house at St. Anaclet caught fire from a forest fire and were entirely destroyed.

On October 7, 1901, the Princess pier at Point Lévis caught fire from a barge lying alongside and was considerably damaged.

On October 17, 1901, the wooden building covering the turntable at Spring Hill Junction was destroyed by fire. The origin of the fire is not known.

On December 29, 1901, the engine house at Dartmouth was burned, and a locomotive in it was badly damaged. The origin of the fire has not been discovered.

On November 25, 1901, there was a storm and a very high tide which did considerable damage to the track of the Dartmouth branch, also to the main track around Bedford Basin, near Halifax.

In March, 1902, there were freshets, and one of these on the 18th and 19th, damaged the track between St. John and Moncton.

These damages were promptly repaired.

I have the honour to be, sir,
Your obedient servant,

D. POTTINGER,
General Manager Government Railways.

Collingwood Schreiber, Esq., C.M.G.
Deputy Minister and Chief Engineer, Railways and Canals,
Ottawa, Ont.

No. 1.—INTERCOLONIAL RAILWAY.

DR. CAPITAL ACCOUNT, Year ended June 30, 1902. CR.

		$ cts.	$ cts.			$ cts.
1901.				1901.		
June 30..	To cost of Intercolonial Railway to date		63,640,028 75	June 30...	By Dominion of Canada	63,640,028 75
1902.	To expenditure for current year :					
June 30..	Towards improving ferry service at Strait of Canso	293,000 00				
	Increased facilities along the line	10,354 44				
	Increased facilities and accommodation along the line	92,604 67				
	Increased accommodation, Sydney	77,609 99				
	To strengthen bridges	93,431 14				
	Increased accommodation, Pictou	42,661 65				
	To dredge and blast rock at Halifax	25,977 82				
	To build new and enlarge old engine houses	135,049 11				
	Increased accommodation, Lévis	75,341 09				
	" " St. John	111,299 00				
	Rolling stock	2,066,879 38				
	Improvements at Mulgrave	15,085 72				
	To complete highway bridge at Rocky Lake	1,941 22				
	Sea wall, Cape Breton	7,939 53				
	Additional snow fences along the line	4,975 85				
	Improvements at Westchester	4,653 58				
	Increased accommodation, Halifax	71,928 48				
	Increased accommodation, Stellarton	20,488 98				
	Additional sidings along the line	157,998 48				
	Land damages at subway, Amherst	452 68				
	To exchange drawbars of freight cars	15,000 00				
	New machinery for locomotive and car shops	53,985 87				
	Steel rails and fastenings	188,190 61				
	G. S. Mayes for work done on I.C.Ry. at Pictou, in full settlement	8,939 39				
	Large turntables	4,908 23				
	Buildings and appliances for making Pintsch gas	14,999 23				
	Improvements at St. Octave	4,318 44				
	Station and freight house, Eel River	1,554 90				
	Air brakes to freight cars	23,688 75				
	To change car couplers on passenger cars	1,315 00				
	Extending blacksmith shops, Moncton	675 57				
	Original construction	949 22				
	Award of arbitrators in connection with the Eastern Extension Railway of Nova Scotia	671,836 00				
	Award of arbitrators in connection with the Eastern Extension Railway of New Brunswick	280,692 18				
	Station at Nicolet	46 54				
	Master car builder's couplers for locomotives	2,979 76				

To equip ten passenger cars with Pintsh gas apparatus	943 34				
To equip passenger cars with vestibules	3,539 69				
Drop pits	2,331 05				
Land damages O. & N.G. & C.B. divisions	602 84				
New superstructure for six spans of Miramichi bridge	71,960 90				
Nine electric and four mechanical semaphores	2,449 99				
Raise Sydney and Louisburg railway bridge over Intercolonial Railway at Sydney	10 50				
Purchase of Drummond County Railway	5,000 00				
		4,670,590 80	1902. June 30.	By Dominion of Canada	4,670,590 80
		68,310,619 55			68,310,619 55

E. & O. E.,
MONCTON, N.B., June 30, 1902.

T. WILLIAMS,
Chief Accountant and Treasurer.

No. 2.—INTERCOLONIAL RAILWAY.

Dr. Revenue Account, year ended June 30, 1902. Cr.

Previous Year.	Expenditure.	Year ended June 30, 1902.	Previous Year.	Earnings.	Year ended June 30, 1902.
$ cts.		$ cts.	$ cts.		$ cts.
1,970,987 70	Locomotive power, Abst. No 1.	2,030,928 40	1,607,166 79	Passenger traffic...	1,770,941 13
1,134,291 72	Car expenses " 2.	1,119,461 86	3,121,006 15	Freight traffic.....	3,644,513 42
1,151,263 65	Maintenance way&works " 3.	1,155,891 66	244,062 93	Mails and sundries	255,931 36
627,872 94	Station expenses " 4.	699,797 82			
372,139 21	General charges " 5.	445,227 50			
5,256,555 22		5,451,307 24			
63,867 42	Car mileage, credit..	16,743 94			
5,320,422 64		5,434,563 30			
140,000 00	Rental of leased lines.	140,000 00			
....		5,574,563 30	4,972,235 87		5,671,385 91
....	Balance..	96,822 61	488,186 77	Balance.....	
5,460,422 64		5,671,385 91	5,460,422 64		5,671,385 91

E. and O. E., T. WILLIAMS,
Moncton, N.B., June 30, 1902. *Chief Acct. and Treasurer.*

No. 3.—INTERCOLONIAL RAILWAY.

Locomotive Power, Abstract No. 1.

Previous Year.		Year ended June 30, 1902.
$ cts.		$ cts.
18,273 60	Mech'l supt's salary, clerks, office and travelling expenses.....	22,144 35
468,734 14	Wages of drivers, firemen and cleaners.....	486,976 72
973,268 83	Fuel.....	1,044,047 42
27,023 07	Oil, tallow and waste and small stores.....	27,150 23
413,127 27	Repairs to engines, tenders and engine tools...	374,699 59
38,755 52	Water, including pump and tank repairs.....	40,166 27
31,805 27	Miscellaneous	35,743 82
1,970,987 70		2,030,928 40

E. and O. E., T. WILLIAMS.
Moncton, N.B., June 30, 1902. *Chief Acct. and Treasurer.*

No. 4.—INTERCOLONIAL RAILWAY.

Car Expenses, Abstract No. 2.

Previous Years.		Year ended June 30, 1902.
$ cts.		$ cts.
128,222 68	Repairs to passenger cars	117,332 16
31,493 24	Repairs to postal, express and baggage cars	31,193 78
326,075 62	Repairs to freight cars and vans	304,035 58
6,635 12	Repairs to snow ploughs and flangers	7,510 87
452,385 55	Wages of conductors, train baggagemasters and brakemen	472,227 27
7,498 40	Oil and waste for packing	6,992 33
123,215 22	Small stores and fuel	125,851 51
58,765 89	Miscellaneous	54,318 36
1,134,291 72		1,119,461 86

E. and O. E.,
Moncton, N.B., June 30, 1902.

T. WILLIAMS,
Chief Acct. and Treasurer.

No. 5.—INTERCOLONIAL RAILWAY.

Maintenance of Way and Works, Abstract No. 3.

Previous Year.		Year ended June 30, 1902.
$ cts.		$ cts.
10,242 75	Chief and assistant engineer's salaries, clerks, office and travelling expenses	6,847 94
612,571 94	Wages in repairing roadway, fences, semaphores, including new sidings laid in	491,693 27
78,659 37	Rails and fastenings, including new sidings laid in	69,441 83
123,997 89	Ties	192,566 46
97,973 42	Timber, lumber, &c., for repairs to bridges, cattle-guards, snow sheds, fences, &c	180,911 48
5,627 71	Repairs to wharfs	12,075 32
100,081 60	Repairs to buildings and platforms, including extensions and additions to same	100,122 38
22,374 23	Repairs to tools	17,612 25
96,855 01	Clearing snow and ice	80,982 47
2,879 73	Miscellaneous	3,638 26
1,151,263 65		1,155,891 66

E. and O. E.
Moncton, N.B., June 30, 1902.

T. WILLIAMS,
Chief Acct. and Treasurer.

No. 6.—INTERCOLONIAL RAILWAY.

Station Expenses, Abstract No. 4.

Previous Year.	——	Year ended June 30, 1902.
$ cts.		$ cts.
506,866 40	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage masters, yard masters, switchmen and labourers.	567,462 64
121,006 54	Fuel, oil and light, stationery, ticket and other incidental expenses.....	132,335 18
627,872 94		699,797 82

E. and O. E.
Moncton, N.B., June 30, 1902.

T. WILLIAMS,
Chief Acct. and Treasurer.

No. 7.—INTERCOLONIAL RAILWAY.

General Charges, Abstract No. 5.

Previous Year.	——	Year ended June 30, 1902.
$ cts.		$ cts.
151,589 76	General manager, manager, traffic manager, district superintendents, train despatchers, general freight agents, general passenger, agent's salaries, clerks, office and travelling expenses.....	187,007 50
42,051 12	Chief accountant and treasurer, traffic auditor, paymaster, cashiers' salaries, clerks, office and travelling expenses....	46,205 79
17,928 62	Damages to men, animals and goods	28,391 04
60,526 78	Ferry service.....	67,409 28
4,107 84	Telegraph expenses, not including pay to operators.....	3,495 14
39,290 08	Missellaneous, printing, advertising, &c.....	50,338 04
56,328 35	Agency expenses.....	62,380 71
371,822 55		445,227 50
316 66	To pay J. J. Wallace and John M Lyons	.....
372,139 21		445,227 50

E. and O. E.
Moncton, N.B., June 30, 1902.

T. WILLIAMS,
Chief Acct. and Treasurer.

No. 8.—INTERCOLONIAL RAILWAY.

Special Votes, Abstract No. 6.

Previous Year.	Rented of leased Lines.	Year ended June 30, 1902.
$ cts.		$ cts.
140,000 00	Rent of Grand Trunk Railway—Chaudière Curve to Chaudière and Ste. Rosalie to Montreal, including the Victoria Bridge and terminals at Montreal.....	140,000 00

E. and O. E.
Moncton, N.B., June 30, 1902.

T. WILLIAMS,
Chief Acct. and Treasurer.

No. 9.—INTERCOLONIAL RAILWAY.

DR. GENERAL STORES ACCOUNT—Year ended June 30, 1902. CR.

1901.		$ cts.	$ cts.	1902.		$ cts.	$ cts.
June 30....	To balance		1,824,977 04	June 30....	By issues during year	3,132,258 66	
					Sales material, fuel, etc	44,091 77	
1902.					Sales old material	218,640 15	
							3,394,990 58
June 30....	To Purchases during year	2,421,480 64					
	Charges from other departments	559,437 17					
	Labour, etc	109,005 39			By balance:—		
	Staff pay rolls	15,467 54					
			3,105,390 74				
					Ordinary stores including fuel	1,077,571 25	
					Iron and steel rails and fastenings	457,805 95	
							1,535,377 20
			4,930,367 78				4,930,367 78

E. & O. E.

MONCTON, N. B., June 30, 1902.

T. WILLIAMS,
Chief Accountant and Treasurer.

No. 10.—INTERCOLONIAL RAILWAY.

General Balance, Year ended June 30, 1902.

Dr.		$ cts.	Cr.	$ cts.
To Cash		501 54	By Dominion of Canada	1,857,224 17
Stations		164,136 09	Suspense	4,338 90
Rents		3,774 49	Chatham Railway	0 07
General Stores—			Canadian Pacific Railway—traffic	17,063 51
Ordinary stores, including fuel	$ 1,077,571 25		Safety Car Heating and Lighting Co	8 07
Iron and steel rails and fastenings	457,805 95		Dartmouth Rolling Mills	1,848 00
		1,535,377 20	Mechanical Department	2 82
Dept. Accounts—			Pullman Car Co	15 00
Militia and Defence	$ 2,857 32		Nova Scotia Central Railway	7 58
Agriculture	15,005 93		Salisbury and Harvey Railway	5 94
Post Office	107 48		Delaware, L. and W. Railway	15 81
Marine and Fisheries	100 58		Cumberland Railway and Coal Co	97 89
		18,071 31	Canada Coals and Railway Co	15 00
Canadian Pacific Railway—rolling stock		22,446 90	Quebec Construction Co	6,991 23
Canada Eastern Railway—traffic	5,891 09		Portland Rolling Mills	15,256 72
" " general	6,704 38		American Locomotive Co	259 70
		12,595 47	Individual accounts	37,257 21
Canadian Pacific Railway—general	14,422 40			1,940,407 62
" " (N.-B. Div.)—general	4,360 67			
		18,783 07		
Grand Trunk Railway—general	5,062 60			
" " traffic	12,597 50			
		17,660 10		
Quebec Central Railway		4,489 11		
Western Counties Railway—general	15,893 35			
" " traffic	64 57			
		15,957 92		
Transportation ledger		1,528 53		
Unclaimed freight		500 36		
Surveys and inspection		500 13		
Caraquet Railway		2,363 37		
Dominion Atlantic Railway		600 50		
Atlantic and Lake Superior Railway		5,740 12		
Boston and Maine Railway		73 04		
N. B. and P. E. Island Railway		5 10		
Moncton and Buctouche Railway		123 89		
Tobique Valley Railway		2,739 25		
Canada Atlantic Railway		21 57		
Kent Northern Railway		6,020 41		
New York Central and Hudson River Railway		7 23		
Imperial Tank Line		31 66		
Restigouche and Western Railway		6 98		

National Despatch Line		5 01
Temiscouata Railway	1,213	49
P. E. Island Railway	338	99
Pennsylvania Railway		3 09
Inverness and Richmond Railway	5,689	77
Central Vermont Railway		3 28
Grand Trunk Railway—suspense		98 75
Drummond County Railway	7,199	87
Wabash Railway		12 92
Newfoundland Railway		9 80
Michigan Central Railway		3 49
Pennsylvania Co		9 45
Rutland Railway		1 63
Maine Central Railway		1 38
Elgin and Havelock Railway		39 40
Midland Railway of N.S.		969 76
South Shore Railway		12 00
Quebec Southern Railway		454 36
Central Railway of N. B.	1,117	28
New York, N. H. and H. Railway		38 72
Cape Breton Railway Co	1,501	84
Lake Shore and Michigan Southern Railway		1 20
Philadelphia and Reading Railway		0 89
Lipton Car Line		1 20
Great Northern Railway of Canada		12 52
Northern Pacific Railway		5 97
Swift Refrigerator Line		1 99
Chicago, New York and B. Ref. Line		0 40
Chicago, M. & St. Paul Railway		1 36
Minneapolis, St. Paul and Sault Ste. Marie Railway		1 20
Baltimore and Ohio Railway		11 30
Charlottetown Steam Navigation Co		79 63
Canada Atlantic and Plant Line		2 50
Lehigh and Hudson River Railway		1 00
Hackett Refrigerator Car Co		0 83
Ballston Terminal Railway		639 96
Central Railway of New England		4 27
Toledo, St. Louis and Western Railway		3 32
St. Martin's and Upham Railway		28 89
Cincinnati, Hamilton and Dayton Railway		1 30
SS. *Minto*		289 64
Canadian Express Co	7,716	06
Acadia Coal Co		21 51
Intercolonial Coal Co		765 06
Dominion Coal Co		320 87
Steamer *Admiral*	1,480	22
St. Francis Bridge Co		49 59
Western Union Telegraph Co		526 90
Royal Visit	10,189	80
Dominion Iron and Steel Co	3,234	69

No. 10.—INTERCOLONIAL RAILWAY—*Continued.*

General Balance, Year ended June 30, 1902—*Continued.*

		$ cts.	$ cts.
To Baldwin Locomotive Works		181 10	
Municipality of Kings, N.B		60 00	
SS. *Verda*		50 78	
SS. *Lake Ontario*		17 04	
SS. *Assyria*		10 04	
Car Victoria		24 10	
Standard Car Truck Co		465 30	
Nova Scotia Steel and Coal Co		20 82	
Barney and Smith Car Co		12 20	
SS. *Scotia*		8,846 86	
Montmagny Light and Power Co		18 73	
Elmsdale Brick Co		0 95	
Atlantic Grindstone Co		26 84	
Manchester Locomotive Works		259 80	
Halifax Station Labour		500 00	
Engineering Contract Co		518 68	
McDonnell Rolling Mills		385 56	
Canadian Pacific Railway Telegraph Co		81 67	
Micmac Mining Co		317 94	
Allan SS. Line		1,892 13	
Union Bearing Co		928 18	
Elgin Branch Ry		726 10	
Polson Iron Works		273 25	
Town of Dartmouth		32,000 00	
St. John Street Ry		31 00	
Ontario Car and Foundry Co		1,276 00	
Remittances destroyed		788 81	
Schooner *Mary Jane*		71 30	
Springhill and Parrsboro' Ry		3,161 99	
Coldbrook Rolling Mills		1,967 41	
Halifax and Cape Breton Ry		1,151 42	
Uncurrent and failed bank notes		77 20	
Trois Pistoles station	$ 97 37		
Eel River "	32 61		
Nauwigewauk "	3 00		
Glengary "	5 00		
Bloomfield "	25 21		
Coal Branch "	65 84		
Weldford "	55 06		
Bic "	22 00		
Ste. Luce "	80 00		
St. Arsene "	107 12		

Dalhousie	"	19 69	
Valley	"	6 65	
Iona	"	72 71	
Isle Verte	"	25 00	
Kent Junction	"	28 38	
Gloucester Junction station		78 87	
Campbellton (freight)	"	25 00	
Derby Junction	"	231 04	
Ste. Louise	"	0 66	
Nicolet	"	3 00	
St. Alexandre	"	25 90	
Rivière du Loup (freight)	"	136 82	
Rivière du Loup (ticket)	"	16 00	
Red Pine	"	20 00	
New Castle	"	102 75	
Nappan	"	40 00	
Memramcook	"	7 54	
St. John (freight)	"	3,096 46	
Amherst (freight)	"	3 31	
Boisdale	"	7 80	
Sackville	"	10 17	
Wentworth	"	33 24	
Rockingham	"	27 47	
New Glasgow	"	633 90	
Nash's Creek	"	5 00	
Shediac	"	34 70	
Eureka Mills	"	13 56	
Halifax (freight)	"	887 49	
Athol	"	4 44	
			6,090 70
Total			1,940,407 62

Total	1,940,407 62

T. WILLIAMS,
Chief Accountant and Treasurer.

INTERCOLONIAL RAILWAY.

No. 11.—Comparative Statement of Averages, year ended June 30, 1902.

——	1901.	1902.
Mileage of railway	1,314·67	1,314·67
Engine mileage	7,909,297	7,636,113
Train mileage	6,262,674	6,067,947
Car mileage	70,117,194	74,973,924
Receipts per engine mile. Cents.	62·86	73·74
Receipts per mile of railway. Dollars.	3,782 11	4,313 92
Percentage of passenger earnings to gross earnings	32·32	31·23
" freight " "	62·77	64·26
" other " "	4·91	4·51
Expenses per engine mile :		
Drivers, firemen and cleaners' wages. Cents.	5·93	6·38
Fuel "	12·31	13·67
Oil, tallow, waste and small stores "	·34	·35
Repairs to engines "	5·22	4·91
Water and tank repairs "	·49	·53
Miscellaneous "	·40	·47
Total	24·69	26·31
Mechanical superintendent's salary, office and travelling expenses	·23	·29
Total	24·92	26·60
Locomotive power per engine mile. Cents.	24·92	26·60
Car expenses " "	14·34	14·66
Maintenance way and works per engine mile "	14·55	15·14
Station expenses per engine mile "	7·94	9·16
General charges "	4·70	5·83
	66·45	71·39
Less—Car mileage	·81	·22
Total	67·26	71·17
Rental of leased lines	1·77	1·83
Total per engine mile	69·03	73·00
Locomotive power per train mile. Cents.	31·47	33·47
Car expenses " "	18·11	18·45
Maintenance way and works per train mile "	18·38	19·04
Station expenses " "	10·03	11·53
General charges " "	5·94	7·34
	83·93	89·83
Less—Car mileage	1·02	·27
Total	84·95	89·56
Rental of leased lines	2·24	2·31
Total per train mile	87·19	91·87
Working expenses per mile of railway—		
Ordinary	$4,046 96	$4,133 78
Rental of leased lines	106 49	106 48
	$4,153 45	$4,240 26

T. WILLIAMS,

Chief Acct. and Treasurer.

E. and O. E.

Moncton, N.B., June 30, 1902.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE GENERAL SUPERINTENDENT.
MONCTON, N. B., September 18, 1902.

SIR,—I have the honour to submit the annual report on the maintenance of way and works for the year ended June 30, 1902.

I have the honour to be, sir,
Your obedient servant,

J. E. PRICE,
General Superintendent.

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton, N. B.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE ENGINEER OF MAINTENANCE.
MONCTON, N. B., September 18, 1902.

SIR,—I have the honour to submit the report of the Maintenance of Way and Works Department, for the year ending June 30, 1902.

TRACK.

During the year 33·34 miles of 4-inch, 4½-inch and 4¼-inch rails worn at the ends were cut and relaid.

TIES.

During the year 557,393 ordinary ties, and 335 sets switch ties were renewed.

BALLASTING.

95·43 miles of track ballasted during the year, using 143,962 cub. yds.

SWITCHES AND SEMAPHORES.

Distant semaphore signals were erected or extended, at the following stations :—Point Tupper (1), McKinnons Harbour (2), Moffats (2), Cedar Hall (1), Campbellton (1), Isle Verte (1), Cacouna (1), Cap St. Ignace (2), St. Luce (2), Riv. Ouelle (2), L'Islet (1), St. Cyrille (1), St. Apollinaire (1), St. Nicholas (2).

Fifty-four new switches were put up on the various divisions during the year.

New station telegraph signals were provided at the following stations :—College Bridge, Alton, Hilden, Canaan, St. Alexis, Salmon Lake, Trois Pistoles, St. Pacôme, Dessaint, St. Wenceslas, Ste. Monique.

Necessary repairs were made to all other semaphores, switches and station telegraph signals, throughout the line where required.

SIDINGS.

During the year, 2,997 feet of additional siding accommodation has been provided at different points throughout the line.

FENCING

During the year 83·64 miles of Barbed, Page and Anchor Strathy Wire Fencing were erected at different points throughout the line, and necessary repairs made to existing fences.

SNOW SHEDS AND SNOW FENCES.

Repairs were made to existing snow-sheds and fences, where found necessary.

WHARVES AND TRESTLES.

At Pointe du Chêne, repairs made to wharf, planking renewed.

At Sackville, drove piles and put hard pine top on trestle.

At Dorchester, repairs made to wharf, new cribwork, piles, &c., gridiron extended.

At Little Forks, rebuilt cribwork.

At Onslow, repairs made to cribwork.

At Halifax, necessary repairs made to planking and erecting new buffer on pier No. 1, necessary repairs made to planking on pier No. 2, floating fenders repaired and replaced, defective timber replaced where necessary, new mooring post put up. Necessary repairs made to pier No. 3, also floating fenders repaired. Necessary repairs made to pier No. 4 and approaches, floating fenders repaired Necessary repairs made to planking on pier No. 5, erecting new buffers, and extending shore end of pier. Necessary repairs made to planking and a number of piles driven to support pier No. 6. Removed old sunken piles at pier No. 7. Repairs made to planking on pier No. 8. Necessary repairs made to pier No. 9. Planking renewed where necessary. On piers Nos. 9 and 10 piles driven. Grading done around wharfs. Repairs made to stages at boat landing. 61 piles driven to support coal trestle, coal drop-chute repaired.

At Stellarton, repairs made to abutment adjoining end of coal trestle with 8 x 10 cedar. Crib work repaired with cedar face.

At Pictou, repairs made to winter landing and wharf.

At Pugwash, repairs made to wharf, new tie bolts, hard pine ties renewed where necessary.

At Pomquet, repairs made to trestle, new 12 x 12 hemlock stringers put in, and new bolts where required.

At Antigonish, cribwork repaired with hemlock logs and new bolts,

At Mulgrave, little pier repaired and also necessary repairs made to cribwork of dock. Repairs made to wharf where necessary.

At Mulgrave, some old timber taken out and replaced with 12 x 12 spruce. New hardwood sheathing where necessary.

At Pt. Tupper, repairs made to wharf, new facing put on where required, old timber taken out and replaced with hardwood and hemlock where necessary.

At Ottawa Brook, repairs made to trestle, new hard pine ties put on, and new chock blocks.

At Dowlings Gulch, repairs made to trestle, new hard pine ties put on and new chock blocks.

At Beaver Cove, repairs made to cribwork with cedar timber.

At Walkers Brook, repairs made to trestle, new hard pine ties and chock blocks put on.

At North Sydney, made repairs to wharf and put up new bumper, old timber replaced with 12 x 14 hemlock where necessary.

At Dalhousie, made general repairs to crib wharf.

At Rivière du Loup, repairs made to trestle, old timber replaced with new cedar and spruce timber.

At Lévis, repairs made to wharf, old timber removed, and new pine timber put on, planking renewed where necessary, necessary repairs made to Princess Pier. Repairs to wharf at Cabane des Pères, old timber replaced with cedar.

BUILDINGS AND PLATFORMS.

At St. John, an old building taken down which stood on land expropriated from Harris, repairs made to offices in local and C. P. R. freight sheds. Necessary repairs made to ladies waiting-room. Repairs made to roundhouse.

At Rothesay, removed a small building from here to Torryburn and fitted up for coal-shed.

At Bloomfield, new hand car-house built.

At Apohaqui, new sheathing in office and waiting-room.

At Morton, loading platform built 200 ft. long.

At Pollet River, renewed platform in part.

At Salisbury, shingled roof of station and laid new floor in waiting-room, and made other necessary repairs.

At Moncton, old snow-plough shed taken down, repairs made to General Manager's cottage. Repairs to general office building where required. Repairs made to yardmaster's office. Renewed roof of coal-shed, new coal drop made. New flagman's shanty for Sydney. Enlarged ice house. Roof repaired on detectives' office. Made oak wheels for cattle chute, Drummondville. New floor on track scales in baggage-room. Repaired floor in machine-shop. Replaced broken glass in roundhouse. Office built at transfer shed.

At Memramcook, necessary repairs made to passenger platform.

At College Bridge, repaired and painted inside of station.

At Dorchester, took down partition and enlarged kitchen.

At Sackville, renewed 50 feet of loading platform, changed front room of station into baggage-room, and built platform.

At Aulac, repairs made to passenger platform.

At Amherst, built new platform around derrick, 15 x 15 feet.

At Springhill Junction, repairs made to station chimney; put new roof on coal-house.

At Salt Springs, new platform built in front of freight-house, 30 x 8 feet. New station-house and freight house built, 24 x 40 feet.

At River Philip, built new loading platform, 80 x 12 feet, with approaches 30 feet each.

At Oxford Junction, repairs made to passenger platform. Built new shed for pump-house, 12 x 14 feet

At Greenville, made 100-foot drain to station cellar.

At Wentworth, cellar put under station and a drain made.

At East Mines, hardwood floor laid in kitchen and dining-room; dining-room sheathed, and general repairs made to the doors and flues.

At Truro, extended platform to baggage-room; repaired new timbers in engine shed. Old baggage-room refitted for a despatcher's office. Repaired drop at coal-shed. Repairs to freight-house doors and doors of car-shed, also doors of baggage-room. Extended iron rack for the mechanical department. Boxed in freight-house scales. Necessary repairs to floor of engine-house. Framed floors in water cranes and covered them, boxed in the valves and pipes. Made an icehouse in old bark building. Necessary alterations made in second floor of station. Fitting battery and record rooms. Put on platforms to stand pipes and cased them. Repaired turntable top and renewed pit timbers in roundhouse and made necessary repairs to floors. Put a door in car-shop. Put a sink in new battery room. Changed express office into an office for station-master. Repaired floor blacksmith shop. Put a counter in yardmaster's office; repaired

closet. Made repairs to circle around turntable and chock blocks in engine-house, also repairs to floor of freight-house. Repaired planking of passenger platform. Necessary repairs to roof of engine-house. Hardwood floors laid in rest rooms. Box car fitted up for shunters' shelter. Box car fitted up for boarding car. Renewed glass in station where required, and repaired closets. Made repairs to station platform. Renewed glass in engine-house where necessary.

At Hilden, repairs made to platform.

At Brookfield, made repairs to doors and windows of station.

At Alton, made repairs to doors and windows of station, and put up shelves in ticket-office.

At Stewiacke, repaired doors of freight-shed, made repairs to platform and turntable.

At Shubenacadie, repaired loading platform and made necessary repairs to passenger platform. Took down old shingle shed building. Necessary repairs to eave spouts of station. Necessary repairs to baggage-room floors and repaired closet.

At Milford, repaired loading platform.

At Elmsdale, necessary repairs to platform.

At Enfield, necessary repairs to loading platform, and also to passenger platform.

At West River, platform repaired.

At Ferrona Junction, repairs made to station roof.

At Glengarry, necessary repairs to platform.

At Hopewell, necessary repairs to platform.

At Eureka, necessary repairs to platform.

At Ferrona Junction, necessary repairs to platform.

At Wellington, shingled one side of station roof.

At Windsor Junction, repaired station doors, necessary glazing done to windows. Repairs made to floor of baggage-room, necessary repairs to cattle pen and passenger platform. Took down engine-shed and moved to Dartmouth and put it up there.

At Bedford, waiting-room floor repaired, renewed glass in windows. Necessary repairs to ticket-office. Repairs made to passenger platform, and also to the loading platform.

At Princess Lodge, repairs to platform.

At Rockingham, repaired top of platform, put on new planking where needed.

At Richmond, repairs made to turntable engine-house, renewed pit timbers in engine-house, engine-house floors repaired. Planks renewed in coal trestle, pier No. 8. Door to machine-shop enlarged. Repairs to pens and gates of cattle-shed. Repairs to car-shop floor, and glazing done to all buildings. Necessary repairs made to coal shed and tool-houses. Laid platform at coal run. Repaired timbers in track scale.

At Halifax, necessary repairs made to closet, and milk dealers' platform. Repairs to door shed No. 3, and to freight-shed No. 1, three new doors made. New windows put in the inward and outward freight offices. New door made in freight-shed No. 3. Repairs made to door freight-shed No. 4, and to freight shed No. 6 door, and blocked up track timbers. Repaired North street station platform. Necessary repairs to closet. Repairs made to coal trestle. The coke loading platform was removed and reerected on new site. New crossing platform laid down. Repaired platform in train shed North street, and repaired closet floor. Removed shunters' shanty.

At Halifax, removed shunters' shanty. New box drain made to government house and repaired sink. Repaired pit timbers and floor. Laid down entrance platform to Marine and Fisheries. Repaired D. A. R. platform. Glazed windows in round-house. Repaired troughs and yard gates of cattle-shed. Repaired planking and doors at No. 2 shed. Repaired doors and planking at No. 3 shed. Loading crain foundation repaired. Made screens for windows grain elevator. Repaired doors and iron work on shed No. 3. Repaired roof and cupola of North street station. Repaired boiler room North street and fitted shutters to windows. Loading platform D. W. T. extended. Tool-houses fitted up, all over division where necessary. New shelves put up at shed No. 1. Repaired loading crane and set it up. Icehouse

fitted up in D. A. R. shed. Shed No. 2 doors repaired and adjusted and planking repaired. Shed No. 4 doors repaired and adjusted. Repaired floor door and pit timbers in roundhouse. Repaired and braced up wall of coal-shed. Repaired slating on roof of stores building where necessary. Repaired sheating at grain elevator. Repaired floor of track office. New coal chute made. Shunters' shanties repaired. Repaired gates to cattle shed. Erected coal shed for coal dealers. Erected flagman's tower. Floor taken up in old flour store. Coal shed at sugar refinery taken down. Repaired shed No. 4. New ventilator made and fitted up on roof of icehouse. Made necessary alterations and repairs to office for the Pullman car service. Baggage room scales removed and set up at new room. Blocked up immigration building. Blocking up and making general repairs to shed No. 2.

At Darmouth, shingled engine house and built and repaired cribwork. Done necessary glazing to windows.

At Pictou, built water sluice to engine house. Necessary repairs made to the building. Necessary repairs made to platform.

At Pictou, necessary repairs made to freight shed building. Laid floor in part of station cellar, made repairs to station. Repaired tool room in freight shed. Necessary repairs made to waiting room. Repairs made to baggage room.

At Granton, built an extension to station house.

At Westville, necessary repairs made to station platform.

At Wallace, built new tool house. Made platform around derrick.

At Malagash, necessary repairs made to platform.

At Tête-à-Gauche, necessary repairs made to baggage room and repaired steps to station.

At River John, repairs made to freight shed platform.

At New Glasgow, repairs made to station platform. Necessary repairs made to freight shed and station. Fitted up office for mechanical department. New floor laid in dispatcher's office. Necessary glazing done to windows.

At Trenton, necessary repairs made to station and coal shed.

At Woodburn, fitted up box car for telegraph office. Necessary repairs made to platform.

At Marshy Hope, repairs made to tool house.

At Stellarton, repaired freight house and station.

At Dewars, repaired platform.

At Tracadie, repairs made to station.

At Bayfield Road, necessary repairs to station.

At James River, repairs to cattle pen.

At Antigonish, repairs made to station and cattle pen.

At Pomquet, repairs made to closet.

At Pirate Harbour, turntable removed and pit filled in.

At Mulgrave, necessary repairs made to station and freight shed, enlarged ice house. Necessary repairs made to platform.

At Point Tupper, necessary glazing done, and shelving put up in station.

At Mines Road, built new platform. Made repairs to station floor.

At McIntyre's Lake, necessary repairs made to platform.

At West Bay Road, necessary glazing done to windows.

At River Denys, repairs made to platform, necessary repairs made to floor of station. New boarding house built, in ballast pit.

At Orangedale, built new platform in to freight shed, repairs made to station platform. Flooring laid in waiting room and office. Necessary glazing done to windows.

At Alba, repaired closet.

At Grand Narrows, necessary repairs made to platform. Necessary glazing done to windows.

At Boisdale, necessary glazing done to windows.

At McKinnon's Harbour, built new platform.

At North Sydney, necessary repairs to platform. New shelving put up in station. Necessary glazing done to windows.

At North Sydney Junction, shelter built.

At Leitches Creek, new platform built. Necessary glazing done to windows.

At Sydney, necessary repairs to platform. Necessary glazing done to windows. Repairs made to freight offices, repairs made to freight shed.

At Berry's Mills, new window frame put in. Repairs made and kitchen enlarged. Dry closet built. Repairs made to platform.

At Canaan, loading platform repaired. Necessary repairs to roof of station. Repairs to passenger platform. Kitchen chimney repaired.

At Coal Branch, grading around station. Repairs made to station.

At Harcourt, put up lamp post at station, necessary repairs to station platform, repairs made to station.

At Kent Junction, necessary repairs to station platform, put up sink in station building, put new piping in well.

At Rogersville, necessary repairs made to station and freight house, repairs made to foundation of station.

At Acadiaville, necessary repairs made to loading platform, repairs made to passenger platform.

At Berries Mills, new platform built.

At Birch Ridge, repairs made to loading platform.

At Barnaby River, passenger platform repaired, necessary repairs made to station, coal bin repaired. Repairs made to tool house. Grading around station.

At Chatham Junction, repaired station platform.

At Derby Junction, necessary repairs to station platform.

At Indiantown, cattle pen repaired, necessary repairs to station platform, coal shed repaired.

At New Castle, necessary repairs made to freight house platform, repairs made to station platform, built shelter for new wire fencing, necessary repairs to gas meter house, building freight agents office. Coal shed repaird. Ash pit built.

At Red Pine, repairs made to freight house, new closet built.

At Beaver Brook, necessary glazing done to station.

At Gloucester Junction, necessary glazing done to station. Repairs made to door of freight shed.

At Jacquet river, repairs made to hand car house.

At Bathurst, necessary repairs made to station and freight house platforms, necessary repairs and glazing done to station. Repairs made to tool house.

At Petite Roche, necessary glazing to windows at station, shutters made for station windows. New floor in one room at station.

At Beresford, shutters made for station windows. Necessary glazing done to windows.

At Green Point, shutters made for station windows.

At Nashes Creek, necessary repairs to platform, necessary repairs to foundation of cellar, sheathed one room in dwelling apartments, necessary glazing done to windows.

At Hodgin's Siding, repaired foundation of passenger shelter

At Dickies, new platform built, general repairs made to building.

At Charlo, necessary repairs to windows.

At New Mills, necessary glazing done to windows.

At Dalhousie, necessary repairs to coal shed, necessary repairs to engine house, made repairs to station platform, glazing done to windows where required. Repairs made to beams of ash pit in engine house, and new timbers put in where necessary.

At Dalhousie Junction, repairs to foundation freight house, built coal bin in tank house, glazing windows where necessary.

At Campbellton, necessary repairs made to engine house, repairs made to freight shed, platform, necessary repairs made to freight shed, temporary shed built to cover new yard, put up shelving in baggage room, necessary glazing done to engine house and station, repairs made to station as required, necessary repairs to freight shed office, repairs made to coal boxes, necessary repairs made to drop pit in engine house, necess-

ary repairs to ice house, necessary repairs to machine shop, water trough made in cattle pen, repaired circle in engine house, necessary repairs to roof of carpenter shop, repaired screen doors to station.

At Metapedia, necessary repairs made to station platform, repairs made to freight house platform where necessary, repairs made to Metapedia west snow shed, and also to the east snow shed, repaired roof of station building, repaired platform where required, put up two new lamp posts.

At St. Alexis, built double closet, cellar made for station, necessary repairs to station.

As Millstream, necessary repairs to station building, put on new storm doors.

At Assametquaghan, repairs made to roof of station, ceiling of kitchen repaired.

At Amqui, necessary repairs made to platform.

At Salmon Lake, necessary repairs to station.

At Cedar Hall, storm windows put on Government cottages, smokestack put up on kitchen.

At St. Moïse, necessary repairs made to sectionman's house, new flooring in tool house.

At Little Métis, necessary repairs to station.

At St. Octave, necessary repairs made to platform, new lamp shelf put up.

At Ste. Flavie, necessary repairs made to turntable, new tool house built, necessary glazing done to station windows, necessary repairs made to round house.

At Kempt, built a new door for station.

At Ste. Luce, necessary repairs made to doors of station, made platform for well.

At Sacré Cœur, built water tank, necessary repairs made to station, extension made to platform.

At Bic, necessary repairs made to station.

At St. Anaclet, platform extended, and necessary repairs made to station.

At Trois Pistoles, necessary repairs made to station, extension made to platform, necessary glazing done to station windows.

At St. Eloi, necessary glazing done to station windows, repairs made to platform.

At Isle Verte, necessary repairs made to platform, glazing done to windows where required, necessary repairs made to station.

At St. Arsène, necessary repairs made to station, glazing done to windows where required, cattle guard made.

At Cacouna, necessary glazing done to windows in station, necessary repairs made to station.

At Rivière du Loup, repairs made to coal shed, necessary repairs to baggage room, necessary repairs to freight shed, repairs to round house, necessary repairs to platform, glazing done to windows where required.

At Old Lake Road, necessary repairs to doors of station.

At St. André, making and painting book case, repaired loading platform, necessary repairs to station platform, necessary repairs to ceilings.

At Dessaint, put up coal shed and closet.

At St. Pascal, laying brick floor in kitchen, sheathed walls in kitchen, necessary repairs to platform, repairs made to station.

At St. Pacôme, new closet built, coal bin made in cellar.

At Rivière Ouelle, repaired loading platform where necessary, repairs made to station platform, necessary repairs to station and freight shed.

At Ste. Anne, repairs made to doors of station, necessary repairs made to platform.

At Ste. Louise, necessary repairs made to station.

At Trois Saumons, necessary repairs to platform.

At L'Islet, rebuilt station platform.

At Cap St. Ignace, moving repairing and painting closet, extending and repairing platform.

At Montmagny, necessary repairs made to station floor.

At St. Pierre, made and put up a door on old car body, moved and repaired closet.

At St. François, repaired ceiling in station.

At St. Charles Junction, necessary repairs to platform. Made coal chute for coal shed, repairs made to coal trestle, necessary repairs to coal shed.

At St. Henri Junction, put up a coal shed and made necessary repairs to platform, repairs made to coal trestle.

At Chaudière Curve, necessary repairs made to station.

At Quebec City, repairs made to baggage room.

At Hadlow, repairs made to tank, necessary repairs to round house, new doors made for round house, repairs made to closet, repairing pits in round house.

At Levis, necessary repairs to the electric building, repairs made to platforms where necessary, repairs made to sidewalk, repaired carpenter shop, repairs to planking in yard, platform built for unloading cattle, enlarged store room. Converted old carpenter shop into an ice house. Necessary repairs made to floors of baggage room, repaired floor in agent's house, repaired roof of superintendent's house.

At St. Apollinaire, repairs made to platform, laying pipe and putting water into station, changing old station into freight shed. New drain made to station.

At DeLotbinière, putting up cellar door and stairs at station.

At Moose Park, put up new cupboard at station.

At Riv. Sauvage, put up new cupboard at station.

At Maddington Falls, repairs made to station, put in a box drain from station, repairs made to freight shed.

At St. Monique, repairs made to station, put up new cupboard.

At St. Nicolet, put up new doors and cupboard at station, repairs to freight shed and engine house, and repaired turntable.

At Aston Junction, repairs made to agent's dwelling.

At Mitchell, built new portable cattle chute.

At Carmel, repairs made to freight shed and tank. Clapboarded kitchen.

At St. Cyrille, moved stock yard, put in new drain to station, repairs made to freight shed and station, cemented cellar, put on new storm doors and done necessary glazing to windows.

At Drummondville, repaired trestle for coal shed.

At Bagot, made a cattle pen.

At Ste. Rosalie, new car house built.

PAINTING.

The following buildings were painted :—

Ste. Monique, station building ; Nicolet, coal house ; St. Leonard, station and coal house ; Forestdale, station and house ; Aston Junction, station ; St. Apollinaire, station (outside) ; St. Nicholas, station (inside) ; Chaudière Curve, immigrant building, station house (interior), agent's house, coal house ; Ste. Flavie, station building ; Bagot, station (old building) ; St. Eugène, freight house ; St. Germain, station and freight house ; Mitchell, station house ; Kingsburg Junction, station house ; Riv. du Chêne, station (old building) ; Rimouski, freight house and station house ; St. Romuald, freight house ; Hadlow, station (interior), gate house and Bruce house ; St. Joseph, station (exterior) ; Levis, roadmaster's office : Moncton, government cottages, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. Also, freight house, yardmaster's office, watchman's shanty ; Hampton, station building ; Millerton, station building ; Indiantown, station building ; Quispamsis, station building ; Derby Junction, station building (interior) ; Truro, mechanical office, dispatcher's office, superintendent's office, repair shop office ; New Glasgow, station (interior) ; Pugwash, station building ; Eureka, station building ; Afton, station building ; Malagash, station building ; Tatamagouche, station building ; Denmark, station building ; River John, station building ; Meadowville, station building ; Scotsburn, station building ; Scotchhill, station building ; Wallace, station building ; Enfield, station building.

Switches, lamps, semaphores, posts, ladders, crossing signs, &c., &c., throughout were painted where needed.

BRIDGES AND CULVERTS.

At Petitcodiac, took out old rail girder bridge and put in six floor beams.

Between St. John and Point du Chêne, masonry work done.

West of Anagance, wing wall repaired, 56 yards masonry rebuilt, box culvert, 3 ft. x 2 ft. 6-in., repaired throughout, and 12 feet at one end rebuilt.

At Anagance, box culvert repaired and 8 cubic yards masonry rebuilt at ends, box culvert repaired throughout and coping rebuilt,

Between Petitcodiac and Anagance, box culvert repaired, one end rebuilt and coping at other end, box culvert 65 ft. long 3 ft. x 3 ft. repaired throughout, 30 ft. of middle walls rebuilt, and also rebuilt the wings, box culvert 50 ft. long, 3 ft. x 2 ft. 6-in., repaired throughout, one end rebuilt, box culvert 40 ft. long 3 ft. x 2 ft. 6-in., repaired on inside. Box culvert, 50 ft. long, 3 ft. x 3 ft., repaired throughout, one end rebuilt. Box culvert 30 ft. long 3 ft. x 2 ft. 6-in., repairs made where needed. Box culvert, 36 ft. long 3 ft. x 2 ft. 6-in., repaired inside. Box culvert repaired 36 ft. long, 3 ft. x 2 ft. 6-in.

At Petitcodiac, culvert 48 feet long, 4 ft. x 3 ft., rebuilt 15 feet of wall at one end repaired coping on both ends.

West of Salisbury, bottom of arch culvert repaired, open culvert repaired and covered with old rails. Open culvert 25 feet long 3 ft. x 3 ft. rebuilt and covered with rails and coping put on ends.

West of Pollet River, box culvert, 40 feet long 2 ft. 6 in. x 2 ft. 6 in. repaired one end, and middle box culvert 60 feet long 3 ft. x 3 ft. repaired throughout inside. Open culvert rebuilt 25 feet long 3 ft. x 2 ft. 6 in.

At Pollet River, rail top bridge, 70 ft. x 12 ft., new bottom put in, paved throughout with rubble and concrete, double box culvert repaired throughout.

Between Salisbury and Pollet River, box culvert 60 feet long 3 ft. x 3 ft. rebuilt and repaired throughout, repaired coping of rail span bridge. Arch culvert, 50 ft. long 7 ft. wide rebuilt and wings repaired. Arch culvert 40 ft. long, 7 ft. wide repaired, rebuilt 9 cub. yds. masonry, and replaced coping, new bottom put in open culvert 35 ft. x 4 ft., and 5 cub. yds. masonry rebuilt.

At Salisbury, arch culvert, 50 feet long, 7 ft. wide repairs made to ends and coping.

One mile east of Salisbury, arch culvert 85 ft. x 9 ft. repaired wings.

Between Painsec and Sackville, new pile bents under McMannus' bridge, hard pine timber put under the two rail girder bridges on Dorchester grade. Hard pine timber bents were put under Meadow Brook bridge. Rail girders removed from Higgins Brook bridge and Meadow Brook bridges and beam girders put in.

At Upper Dorchester, drove four piles under Scurrs bridge.

At Onslow, laid 60 feet of 12 inch pipe through embankment.

At Truro, renewed wire netting at the overhead bridge. New top put on Lydia Brook bridge.

At Scott's Brook, built cribwork pier under broken girder.

THE FOLLOWING MASONRY WORK DONE BETWEEN PAINSEC AND TRURO.

At Dorchester, tank repaired, springs walled with stone and lined with concrete.

At Sackville Bridge, masonry of abutments pointed and 21 iron clamps put in.

At Nappan Bridge, put on four new bridge seats 5 ft. 6 in. square 18 in. thick, and rebuilt ballast wall.

At River Philip Bridge, pointed masonry on two piers, two abutments and rebuilt copings.

West of Atkinson's Siding, necessary repairs made to box culvert, repaired an arch culvert, and pointed all the masonry.

At Sodom Bridge, built two ballast walls and pointed masonry of abutment.

At Greenville, repaired and pointed all the masonry in tunnel, put in three iron clamps. Repaired and pointed all the masonry west of yard.

At Westchester, cut down side walls to suit new bridge. Pointed masonry.

At Londonderry, repaired box culvert west of yard. Masonry torn down and rebuilt.

At Debert Bridge, setting coping and repairing ballast wall.

At Belmont, built head wall at tunnel west of station and laid 192 feet of pipe. Repaired culvert and pointed walls.

At Stewiacke, repaired culvert.

At Shubenacadie, new bent put under bridge girders. Repaired masonry at bridge abutments.

At Wellington, lifted girders and renewed chairs.

At Riversdale, built cases for cement at bridge, lifted girders and removed bridge seats.

Near Stellarton, put new wall plates on culvert.

At Valley, put new wall plates on culvert.

At West River, put in an under drain at West River bridge.

At Bedford, repaired woodwork on bridge where necessary.

At Halifax, repaired culvert on Cotton Factory Branch, and also repaired box drain at siding. Repaired planking at overhead bridge, North street. Made box culvert in cattle guards. Box drain repaired at North street. Repaired culverts at North street and at D. W. T. Renewed bridge crossing D. W. T. Repaired box drain at Rock cutting.

At Richmond, made new grating for culvert. Bridges were strengthened at the following places :—Rawdon River, Engield Tannery, Carsons, Shubenacadie (overhead), Ellis bridge, Scott's bridge, Hilden bridge, Lydia brook 4th, 6th and 8th crossings, Murray's bridge, Christie's bridge, Campbell siding bridge and Landsburg first crossing.

MASONRY WORK DONE BETWEEN TRURO AND HALIFAX.

Lydia Brook bridge, repaired abutments and coping.

At Brookfield, repaired culvert half mile east af station, repaired culvert in yard.

At Milford, repaired culvert one mile east of station, old rail cover. Repaired and lengthened culvert $\frac{1}{4}$ mile west of station, 43 cubic yards masonry torn down, 60 cubic yards built.

At Valley, repaired culvert. 12 cubic yards masonry torn down and rebuilt.

At Riversdale, masonry on bridge piers repaired, bridge seats renewed. 24 cubic yards masonry torn down and rebuilt. Piers and abutments faced with concrete.

At Lorne, repaired culvert two miles east of station. 21 cubic yards masonry rebuilt. Repaired culvert one mile east of station.

At Rawdon River, renewed bridge seats and pointed walls.

At Motts, necessary repairs made to bridge.

At Haliburton, necessary repairs made to bridge, new caps, corbels and stringers of hard pine.

At Pugwash, repairs made to wharf, decayed timbers and replaced with square cedar. New planking put on where needed and new mooring posts.

At Pictou Harbour, repairs made to bridge, new chocks, braces and knees put in.

MASONRY WORK DONE BETWEEN WESTVILLE AND PICTOU.

At Tatamagouche, box culvert $1\frac{1}{2}$ miles east of station 3 ft. x 4 ft., 90 cubic yards masonry torn down and rebuilt. Repaired double culvert west of station, 10 cubic yards masonry torn down and rebuilt. Repaired culvert west of station, 5 cubic yards masonry torn down and rebuilt. Repairing culvert west of station, 15 cubic yards masonry

torn down and rebuilt. Repairing culvert in yard, 26 cubic yards masonry torn down and rebuilt.

At Horn's Brook, repairing and pointing masonry, and building retaining walls.

At Pictou Branch, repairs made to culverts, 25 cubic yards masonry torn down and rebuilt.

At New Glasgow, repairs made to Georges street culvert.

At Piedmont, timber culvert built with flatted cedar. New drain made east of culvert.

At Marshy Hope, crib work repaired. Old timbers replaced with hemlock.

At Dewars, necessary repairs made and bridge raised.

At Barney's River, necessary repairs made to crib work, old timbers replaced with hemlock.

At Brierly Brook, new ties put on where required on bridge.

At Tailors Road, repairs made to wooden culvert.

At Pomquet, repairs made to bridge.

At Mulgrave, retaining walls of bridge repaired.

MASONRY WORK DONE BETWEEN NEW GLASGOW AND MULGRAVE.

Lane Road, 12 Mile Post, culvert repaired, 28 cubic yards masonry rebuilt.

At McVicars, 11 mile post, culvert repaired, 40 cubic yards masonry rebuilt.

At Caplands, $\frac{1}{4}$ mile east 12 mile post, culvert repaired, $4\frac{3}{4}$ cubic yards masonry rebuilt.

At Tank Curve, $\frac{1}{4}$ mile west 15 mile post, culvert repaired, 65 cubic yards, masonry torn down and 75 cubic yards rebuilt.

At Simpsons, 11 mile post, culvert repaired, 11 cubic yards masonry rebuilt.

At Frasers, east of Little Harbour crossing, culvert repaired, 35 cubic yards masonry rebuilt.

At Stellarton, arch stone culvert repaired, 28·24 cubic yards masonry rebuilt.

At Grand Narrows, renewed beam culverts, necessary repairs made to bridge.

Between Shubenacadie and Beaver Cove, repairs made to beam culverts where necessary.

At River Denys, New timber culvert put in.

At McKinnons Harbour, new timber culvert put in.

At Sydney, necessary repairs made to culvert, repairs made to overhead bridge.

MASONRY WORK DONE BETWEEN POINT TUPPER AND SYDNEY.

At Grand Narrows, resetting plates on abutments.

At Georges River, raising and levelling bridge, 115 cubic yards masonry and concrete built.

At Leitches Creek, ballast wall cut away and rebuilt.

At McDonald's Gulch, two cap stones put in for pedestals, pointed masonry in abutments.

At Mill Brook, four cap stones put in for pedestals.

At Walker's Gulch, four cap stones put in for pedestals, 10 cubic yards rip-rapping built.

At Ottawa Brook, one cap stone put in pedestal. Built addition to abutments.

At James River, repairs made to abutments, 3 cubic yards masonry torn down, and four cubic yards rebuilt.

At Iona, Jamesville trestle, abutments repaired, one bridge seat put in, two cubic yards masonry rebuilt.

At Derby Junction, repairs made to overhead bridge.

At New Castle, repairs made to culvert.

At Dalhousie Junction, renewed timber culvert.

At New Mills, repairs made to overhead crossing, and repaired overhead bridge,
At Belledune, new floor put on bridge.
At Dalhousie, main road culvert renewed.
At Eel River, repairs made to bridge at main road crossing.
At Elm Tree, Fourniers and White's Brook, strengthened rail girder bridges and one culvert.
At Bathurst, made bents for under crossing.
At Campbellton, extended main line in yard, and repaired ash pit.
Between Campbellton and Ste. Flavie, strengthened old rail girders.
At Millstream, repairs made to culvert.
At Ste. Flavie, repairs made to culvert and bridge.
At St. Arsène, repairs made to timber culvert.
At St. Eloi, repairs made to timber culvert.
At St. Fabien, decayed beams replaced with new timber.
At Bic, decayed beams replaced with new timber.
At. Ste. Luce, repairs made to culvert.
At Rimouski, repairs made to bridge.
At St. Anaclet, repairs made to culvert.
At St. Michel, renewed cedar box culvert west of station.
At Trois Saumons, repairs made to bridge.
At St. François, new cedar box culvert put in.
At St. Pierre, new cedar box culvert put in.
At Cap St. Ignace, new box culvert put in.
At St. Jean Port Joli, necessary repairs made to culvert.
At St. Charles, repairing east Boyer bridge, box culvert repaired east of station. Necessary repairs made to culvert at Lake St. Charles.
At St. Joseph, put new bents under bridge.
At Riv. Ouelle, necessary repairs to cedar box culvert.

MASONRY WORK DONE BETWEEN RIV. DU LOUP AND LÉVIS.

Etchemin Bridge, repairs made to beam culvert, $\frac{1}{4}$ mile east of bridge, 14 cub. yds. masonry torn down, and 17 cub. yds. built, repairs made to beam culvert $1\frac{1}{2}$ miles west of bridge, 16 cub. yds. masonry torn down and 22 cub. yds. built.
At Boyer Bridge, arch culvert repaired, 68 cub. yds. masonry built.
At Montmagny, open culvert half mile east of station repaired, 80 cub. yds. masonry rebuilt.
At Harlaka, beam culvert opposite station repaired, 45 cub. yds. masonry torn down, and 57 cub. yds masonry built.
At St. Charles Jct., Culvert repaired, 45 cub. yds. masonry rebuilt.
Between Moose Park and Forestdale, necessary repairs to cedar box culvert.
At Maddington Station, new cedar box culvert built east of station. New cedar box culvert built west of station.
Between Maddington and Forestdale, new cedar box culvert built.
Between St. Monique and St. Leonard, new cedar box culvert built.
At St. Leonard, necessary repairs made to bridge, new sidewalk and railing on bridge.
At Mitchell, built new cedar box culvert west of station. Built new cedar box culvert east of station.
Between St. Monique and Nicolet, built new culvert.
At Drummondville, built new cedar box culvert east of station. Built new cedar box culvert west of station.
At St. Germain, built new cedar box culvert east of.
Between St. Germain and St. Eugène, built new cedar box culvert.
Between St. Eugène and Bagot, built new cedar box culvert.
Between St. George and Ste. Rosalie, new cedar box built.

The following bridges were overhauled, scraped, and painted during the year where necessary :—

East of Forestdale station, No. 6 bridge ; East of Moose Park, No. 7 bridge ; East of Kingsburg, No. 8 bridge ; East of Rivière du Chêne, No. 9 bridge ; East of Rivière du Chêne, No. 10 bridge ; East of Laurier, No. 11 bridge ; East of Laurier, No. 12 bridge ; East of Apollinaire, No. 13 bridge ; East of St. Nicholas, No. 14 bridge ; East of St. Nicholas, No. 15 bridge ; East of St. Rosalie, No. 1 bridge ; East of St. Germain, No. 2 Bridge ; East of St. Cyrille, No. 3 bridge ; East of St. Wenceslas, No. 4 bridge ; East of Aston Junction, No. 5 bridge ; East of Derby Junction, Overhead bridge ; East of Bathurst, Middle River bridge ; East of Bathurst, Little River bridge ; East of Dewars, Dewars bridge ; East of Riversdale, Riversdale bridge ; East of Riversdale, Calvery bridge ; East of Pugwash, Pugwash Draw bridge ; East of Little River, Little River bridge ; East of Dewars, Dewars bridge ; East of Wallace, Overhead bridge ; East of Pomquet, Pomquet bridge ; East of Shubenacadie, Shubenacadie bridge ; East of Stewiacke, Stewiacke bridge ; East of James River, James River bridge.

During the working season a gang of men have been employed making necessary repairs to bridges, tightening rivets, &c., &c.

SIDINGS.

Location.	New.	Extended.
Moncton (iron rack)	135	
Moncton (round house)		70
Moncton yard		610
Merigomish	240	
Merigomish		500
Sylvester		717
St. Arsene	495	
St. Michael	230	

GENERAL.

New buffers made and set up at D. W. T., Halifax. Repairs made to North Street D. W. T., and Young Street crossings.

Necessary repairs were made to trollies, wheelbarrows, and tools, on different divisions.

A number of old box car tops were obtained from the Mechanical Department and sent to different points on the line, repaired and set up, and converted into section men's, hand car, and tool houses.

During the year farm crossings and gates, and cattle guards were renewed and repaired throughout the line where necessary.

Ladders for buildings and semaphores, were provided where required throughout the line.

Whitewashed out-houses and all approaches to public road crossings.

I have the honour to be, sir,
Your obedient servant,

T. C. BURPEE,
Engineer of Maintenance of Ways and Works.

J. E. Price, Esq.,
General Superintendent,
Moncton.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE CHIEF ENGINEER.
MONCTON, N.B., September 24, 1902.

SIR,—I have the honour to submit the following report on capital account expenditures for the fiscal year ending June 30, 1902.

To Increase Accommodation at Halifax.

North Street Station.—On account of the largely increased traffic it was decided to to remodel and enlarge the station.

Plans and specifications were prepared, tenders asked and contract awarded to Illsley & Horn, of Toronto. The work was almost completed.

Rearranged yard at North Street.

Rearranged coal trestle and tracks at Deep Water Terminus.

Suction pipe D.W.T., encased in cedar culvert. Concrete ash pit built.

Surveys and drawings were made for additions to and rearrangement of yard tracks and buildings and plans were prepared for a new engine house.

To Dredge and Blast Rock at Halifax.

The contract to dredge and blast rock from the dock on the south side of pier No. 4, Halifax, was continued to provide 28 feet of water at extreme low tide.

The I.C.R. dredge has also been digging the mud and softer materials to provide 30 feet of water at extreme low tide on the north side of No. 3 pier, and in the docks between Nos. 2 and 3 piers.

The docks were sounded and gauged and plans prepared showing depths of water, for the use of those interested.

To Complete Highway Bridge at Rocky Lake.

The erection of a steel overhead highway bridge, made by the Dominion Bridge Co., was completed. Some additional grading of the highway approaches and fencing was done. The highway is now in good condition. The three level crossings are now closed and all traffic goes by the new road.

Increased Accommodation at Stellarton.

During the year 3·81 acres of land were purchased to provide room for tracks to accommodate the increased traffic. A considerable quantity of grading for the new yard has been done. One culvert has been lengthened, another partly lengthened, and track materials delivered on the ground.

A 50,000 gallon wooden water tank on a trestle 25 feet high has been erected. Three Fairbanks, Morse & Co., No. 6 water columns have been supplied, but are not yet erected.

Towards Improvements at Mulgrave.

The yard was enlarged by completing the filling in the space back of the crib bulkhead built in 1900–1, with material excavated by steam shovel from the cutting towards Pilate Cove. Anchor rods were put in to tie back the bulkhead.

The 56 lb. yard rails were taken up and replaced with 67 lb. rails, fitted with split switches and automatic switch stands. Additional tracks were provided and ballast for the yard brought from James River and River Denys.

One Ellis bumping post was provided at end of freight house siding.

The old cold storage plant belonging to Messrs. Loggie Bros., on railway property, was removed and the ground graded.

Towards Improving Ferry Service at Strait of Canso.

The new ferry steamer *Scotia*, built by Sir W. G. Armstrong, Whitworth & Co., Newcastle-on-Tyne, reached Mulgrave on September 28. On the voyage she encountered heavy weather and the fuel ran out. She was picked up adrift and towed into St. John's, Newfoundland. This necessitated sending her to Halifax to be docked and examined, where painting and scraping was also done. The dimensions and capacity are as follows: Length 282 feet, width 48 feet, load 9 passenger cars, or 18 freight cars, No. of tracks 3, indicated horse power, 2,000. Three Ellis bumping posts were put on deck of Scotia and a number of car fastenings provided.

The two transfer bridges, built under contract with the Dominion Bridge Co. of Montreal, one at Mulgrave and the other at Point Tupper, have been completed. Length 200 feet each in 3 leaves.

Two hoisting engines and boilers of 35 horse-power each, built under contract with Rawson, Morrison & Co., of Cambridgeport, Mass., have been delivered and erected in 18 ft. x 24 ft., power houses, made large enough to accommodate a future electric light plant.

Extensive crib and pile wharfs were built at Mulgrave and Point Tupper to provide docks for the accommodation of the *Scotia* and in connection with the transfer bridges.

These wharfs are faced with double rows of spring piling to lessen the effects of blows from the steamer in docking. Heavy guard cribs filled with stone, were also constructed at Point Tupper, north and south of the dock for protection against drift ice.

Special cast-iron mooring-posts and elevated bollards were provided on the wharfs on both sides of the strait to assist in docking the *Scotia* in heavy weather.

The dredging at Mulgrave and Point Tupper necessary for crib-wharfs and docks has been completed. This work was done under contract with M. Connolly, of Montreal.

The work of enlarging Point Tupper engine-house was completed.

Increased Accommodation at Sydney.

During the year, the railway purchased 18,886 square feet of land (being 261 feet long and 60 to 85 feet in width) to the north of Ferry street and adjoining the right of way. This is for the purpose of improving the connection between the station and freight yards. 10·23 square acres of land were also purchased from the Dominion Iron and Steel Co.

During the summer and fall, the railway worked a steam shovel at Barrack Point, and filled in a portion of Louisa Gardens. During the spring of 1902, the I. C. R. worked a steam shovel at Sydney river, and the excavated material was used to grade up the new yard.

The ballast for the yard was brought from the River Denys ballast pit.

Seven new sidings have been provided on the west side of the main line.

A number of sidings have been laid between the main line and Muggah creek for coaling tracks and repair yard; these will be finished in the ensuing year.

The crib protection at the back of the engine house has been extended and completed.

A 100,000 gallon water tank, 50 feet high has been provided.

A concrete hot-well in connection with the engine house is under construction.

The 6 in. C. I. water pipe in the old yard has been extended to the new yard and engine house, but the water service has not yet been completed.

Sydney station house was remodelled and provided with water closets on both floors. Seating for waiting rooms was also provided.

To Raise Sydney and Louisbourg Railway Bridge over I.C.R. at Sydney.

The Dominion Coal Co. was communicated with on this matter. An agreement was prepared which has not yet been executed.

Sea Wall in Cape Breton.

The work of the sea wall protection under contract with Hugh McDonald was continued to completion.

Increased accommodation at Picton.

Plans were prepared, tenders called and contract let for extension of wharf, new freight shed and remodelling old freight shed. The work is fairly well advanced.

The railway department supplied the creosoted piling and the hard pine timber; cast-iron mooring posts were also provided.

Soundings were made and plans prepared showing dredging required. One 10 inch water crane was erected and connection made with town supply.

Two Ellis bumping posts were provided for the tracks in the freight house.

To improve one road crossing a block of land was purchased.

The house located on this land was removed by the owner.

Improvements at Westchester.

Yard re-arranged, some grading done and sidings put in.

Land damages at Subway at Amherst.

The heirs of Moffatt and others were paid for damages to their land on account of lowering the roadway and building retaining wall in front of their property.

To extend blacksmith shop at Moncton.

Plans, specifications and estimates were made and site partly prepared for this extension.

Building and appliances for making Pintsch Gas.

A Pintsch gas plant was partly installed at Moncton.

A new brick building was built and was made large enough for future additions to plant.

To increase accommoeption at St. John.

Water supply for vessels and fire protection service were partly completed in the terminal warehouse on the new wharf, and electric lights and three 6-ton depot scales put in. Gutters were placed over the doors and platform extended.

The contract for dredging of the docks at the terminal wharf was completed.

36,100 square feet of land was purchased for the approach to the terminal wharf.

Surveys and plans were made for a new yard on the Gilbert property.

Plans and specifications were also prepared for buildings in the yard and for a new four track bridge over the Marsh creek. Two acres of land were purchased at Rothesay to provide material for grading up the new yard. Filling was done, and 15,858 lin. feet of track laid at Gilbert's island. The west end of the brick freight shed was converted into a freight office and a second story added.

A wooden sewer was laid at the new freight office.

Steam pipes were laid from the elevator engine house to the new freight office and station.

An air-brake testing plant was installed in the train house.

Additional sidings were provided at the present engine house, and also at the Ballast wharf.

A new steel turn-table was purchased and set up at the present engine house.

A flag-staff was erected, the grounds graded and concrete walks laid in front of station.

Station and Freight House at Eel River.

Plans were made, tenders asked and the contract awarded to Messrs. Wm. Currie & Co., who have the work well under way. Filling has been done around the station to provide a yard and approaches.

To provide new superstructure for Six spans, Miramichi Bridge.

Contract was let for these spans and work is under way. Three spans being delivered and partly erected on the ground. Materials were provided for false work for landing and storing the old spans. Hard pine ties were also provided for the new bridge.

Improvements at St. Octave.

A new station and dwelling house for the agent has been built and the old station moved to another location. It is proposed to fit the old building for a dwelling for section men.

To increase accommodation at Lévis.

The filling of the ponds between Government wharf and Ferry wharf, and between Government wharf and Young's wharf was completed for additional yard room, and a complete system of drainage for the yard was partly put in.

The new passenger station being built under contract by Joseph Gosselin is almost completed.

Electric lights have been placed in the building.

The yard has been re-arranged and extended.

Some rock was removed from the face of the cliff opposite Paradis Mill.

Station at Nicolet.

Plans were prepared and tenders asked for new station,

Purchase of Drummond County Railway.

The balance of money due on the above was paid over.

9 Electric and 4 Mechanical Semaphores.

2	electric	semaphores were put up at	Oxford Junction.
2	"	"	Stellarton.
3	"	"	Windsor Junction.

To Provide Additional Snow Fences along the Line.

During the year, 1797 rods of snow fence were built.

Increased Facilities along the Line.

Electric semaphores were provided or extended at the following places :—Drummondville, St. Charles Junction, Rivière du Loup, St. Flavie, Metapedia, Moncton, Painsec junction, Spring Hill junction, Wentworth, Sydney.

Materials for coaling and ash-handling plant were provided for Chaudière junction.

Station improvements were made as follows :—

South River, platform built.

Truro, rest rooms in station.

Oxford Junction, freight shed moved, and new platform built.

Sackville, platform provided at the lifting crane.

Old Lake Road, station re-modelled.

St. Philippe de Neri, station remodelled.

Kingsburg Junction, a section house was erected by contract, 24 ft. 4 in. x 26 ft. 4 in.

Plans were prepared for improvements to stations as follows :—

Memramcook, remodelling station.

Humphrey's Mills, new station.

Pollet River. "

Boundary Creek "

Chatham Junction, new freight shed.

Metapedia, new station, remodelling present station for dwelling for agent.

Cacouna, for a covered platform.

St. Michel, remodelling station.

St. Charles Junction, remodelling of station and freight shed.

4 mechanical semaphores (Hodgson's pattern) were provided.

Increased facilities and accomodation along the Line.

Truro.—Platforms extended, water service rearranged 2, 10 in. stand pipes erected, and 550 ft. of 10 in. cast iron pipe laid.

Antigonish.—Station remodelled and W. C. put in.

Pirate Harbour.—Ash pit put in and water supply provided.

Point Tupper.—Well provided at tank.

Point Tupper Water Supply.—About 13 acres of land for reservoir was purchased, two miles from station. A dam was built and 6 in. pipe line 10,025 ft. long laid to tank. An auxiliary steam pump was put in engine house to force water into tank.

River Denys Water Supply.—A dam was built and $\frac{3}{4}$ of a mile of 4 in. and 6 in. C.I. pipe was laid. Tank was moved from McKinnon's Harbour and station platform extended.

Alba.—Well provided.

Grand Narrows, water supply and tank completed.

Parrachois.—Platform extended.

North Sydney, planked around foundation of freight house and provided a new scale in freight house.

Westville Station improvements were completed.

Denmark.—Station remodelled and enlarged.

Malagash.—Loading platform erected.

Wallace.—7 ton crane provided.

Conn's Mills.—Well provided.

Debert.—Well provided.

Londonderry Water Supply.—A dam was built and 650 lin. ft. of 4 in. C. I. pipe laid to tank.

East Mines.—Freight shed and remodelling of station was completed.

Spring Hill Junction.—Ash pit provided ; water supply re-arranged.

Amherst.—Platform erected at crane.

Sackville.—The new crane was erected.

College Bridge.—Station improvements were completed.

Point du Chene.—Well provided.

Moncton.—Fire protection system re-organized. Iron rack provided in the Store Department. A bore-hole was sunk for water.

Torryburn.—Work on station was completed.

Barnaby River,—New station and freight house were completed.

Newcastle.—Ash pit provided.

Bartibogue.—Work on station and freight house completed.

Red Pine.—Station completed.

Gloucester Junction, freight shed completed.

Belledune.—Water supply rearranged.

Nash's Creek.—Work in connection with freight shed and improvements to station completed.

Dalhousie.—Baggage room was completed.
Campbellton.—Addition to freight house was completed.
St. Alexis.—Addition to station platform and grading around station.
Millstream.—A new section house was built, 24 ft. x 26 ft. with a 14 ft. x 14 ft. ell.
St. Octave.—Water supply put in.
Ste. Flavie.—A bore-hole was sunk for water and an ash-pit built.
St. Anaclet.—New platform built.
Sacré-Cœur.—Station platform extended.
Rivière du Loup.—Ash pit provided and electric lights put in station.
St. André.—Freight shed moved and extended.
St. Pierre.—Water supply completed.
St. Charles Jct.—Water supply completed.
Chaudière Jct.—Materials for water supply provided and contract let for pipe laying which was partly completed.
St. Nicholas.—2,640 square feet of land was purchased for additional right of way.
Aston Jct.—Section house 24 ft. x 26 ft. with a 14 ft. x 14 ft. ell erected.
Forestdale.—New 50,000 gal. tank erected and steam pump and boiler provided and 1,100 ft. 3 in. gal. iron pipe laid.
St. Wenceslas.—Station was completed.
Ste. Perpétue.—Freight house extended.
St. Monique.—Station remodelled.
St. Eugène.—Cellar provided.
Bagot.—Cellar provided.
Ste. Rosalie.—Track scale erected.
Sidings were put in or extended at the following places:—

	New.	Extended.
Stewiacke	1,410 feet.	
Alton	2,280 "	
Union	2,117 "	
Estmere		205 feet.
Westville	445 "	
Brown's Point	not complete.	
Aulac	2,205 feet.	
Hampton	2,298 "	
Patterson's (Between Newcastle and Beaver Brook)	3,541 "	
St. Apollinaire	452 "	1,435 feet.

To build new and enlarge old engine houses.

Moncton engine house.—The engine house built in 1889, was found too small to accommodate the large engines now in use, and it was therefore necessary to enlarge the building, making it 81 feet clear inside. A new outer brick wall with concrete foundation was built around the whole circumference of the building, the old wall being removed as the new work progressed. Monitor top sky-lights were built and the roof covered with Sparham roofing. All the engine pits were lengthened and rebuilt and a new track entrance provided. A new concrete floor was laid in part of the building. New smoke-jacks and hoods of the most improved pattern were put in place. New offices for the master mechanic, the engine house foreman and locomotive inspector were provided. The building throughout was piped for water, air and drainage. In the space between the two circular engine houses a brick building was erected in which were placed rest, bath, lavatory equipment and tool rooms.

Stellarton engine house.—The contract work on the Stellarton engine house has been completed. The building is of brick on concrete foundation, and contains 18 stalls of 75 feet clear each. A 70 ft. deck steel turntable was erected. Piping for cold water,

compressed air and steam heating was provided. The building is provided with water closets, urinals and sinks. Water pipes and sewers have been provided where necessary, and the brook running through the site confined to a 4 ft. x 4 ft. cedar box culvert under ground.

A boiler house has been built and a concrete conduit built to convey the steam and air pipes to and from the engine house. Two 100 H. P. Mumford boilers have been installed.

A coaling house 97 ft. x 35 ft. having the track rail on the building 27 feet above the main line rail, has been built with a trestle approach 350 feet long on a grade of 3 per 100.

Sydney engine house.—The contract work on the Sydney engine house has been completed, including 27,000 cubic yards of grading done by contractor in and around the building. The building contains 18 stalls of 75 feet each. A 70 feet through steel turntable has been erected. A boiler house has been built and provided with two 100 H.P. Mumford boilers and induced draft 80 in. fan with direct-connected engine in place of a chimney.

The building is heated with hot air blast. The fan being 130 inches, with direct connected engine located in the boiler house. The general plan of building is the same as Stellarton.

Campbellton engine house.—Work on the enlargement of engine house was completed.

St. John engine house.—Enlarged ash pits in engine house.

Drop pits.

Two drop pits have been constructed. One in the Stellarton engine house, and one in Sydney engine house. They extend over two tracks, and are provided with travelling air jacks. The drop pit in Campbellton engine house was completed.

Large turntables.

A new 70 feet through turntable was purchased.

TO PROVIDE ADDITIONAL SIDINGS ALONG LINE.

Location.	New.	Extended.
	Division—Dartmouth Branch.	
Dartmouth	885 feet.	578 feet.
Black Rock	1,017 "	
	Division—Halifax to Stellarton.	
Windsor Junction	1,854 feet.	
Elmsdale	183 "	1,650 "
Millford		1,250 "
Shubenacadie	1,700 feet.	
Truro, East	516 "	
Truro, West	314 "	
Valley	671 "	
Gordon's Summit		2,100 "
Glengarry		750 "
Hopewell		997 "
Stellarton	1,200 feet.	
	Division—Stellarton to Mulgrave.	
Trenton	1,343 feet.	
Woodburn		800 "
West Merigonish		1,212 "
Piedmont	240 feet.	900 "
Avondale	900 "	
Barney's River		1,200 "
Afton		900 "
James River	1,644 feet.	
Linwood	1,463 "	
Harbour au Bouche		950 "

TO PROVIDE ADDITIONAL SIDINGS ALONG LINE—*Concluded.*

Location.	New.	Extended.
	Division—Point Tupper to Sydney.	
Hawkesbury	1,245 feet.	
Mines Road	1,216 "	
West Bay Road	176 "	
River Denys	457 "	570 feet.
Ottawa Brook	248 "	
McKinnon's Harbour		400 "
Grand Narrows	582 feet.	1,100 "
Leitche's Creek	420 "	779 "
	Division—Truro to Painsec.	
Belmont	2,680 feet.	
Londonderry		2,600 "
Wentworth		2,156 "
Westchester	1,300 feet.	
Thompson	2,450 "	
River Philip	2,262 "	
Maccan		4,103 "
	Division—Pointe du Chêne to St. John.	
Salisbury		788 "
Pollet River	2,310 feet.	
Anagance	645 "	
Penobsquis	2,500 "	
Apohaqui	2,100 "	
Norton	3,098 "	
Nauwigewauk	2,208 "	
Rothesay	2,783 "	
	Division—Moncton to Newcastle.	
Berry's Mills	820 feet.	
Catamount	3,354 "	
Canaan	810 "	
	Division—Newcastle to Campbellton.	
Beresford	2,932 feet.	
Bathurst	445 "	
	Division—Campbellton to Ste. Flavie.	
Metapedia	724 feet.	
Salmon Lake		1,323 "
St. Octave	3,400 feet.	
	Division—Ste. Flavie to Rivière du Loup.	
Ste. Luce		700 "
Rimouski		2,600 "
St. Eloi		508 "
Rivière du Loup	240 feet.	
	Division—Rivière du Loup to Chaudière.	
Dessaint	460 feet.	
Elgin Road	365 "	
Trois Saumons	368 "	
St. Charles Junction		400 "
Chaudière Junction	1,998 feet.	
	Division—Chaudière to Ste. Rosalie.	
Chaudière	2,920 feet.	
St. Nicholas	445 "	1,238 "
De Lotbinière	400 "	
St. Léonard Junction	3,219 "	
Petit Portage	402 "	
St. Monique		825 "
St. Cyrille		2,465 "
Near Drummondville	300 feet.	
Ste. Rosalie		1,654 "

To strengthen bridges.

Contracts were let for the following bridges under this vote :—
Middle River, 2 spans of 87 feet each through plate girders.
Nash's Creek, 1 span of 87 feet " "
Sayabec, 1 span of 87 feet " "
Louison's Brook, 1 span of 65 feet " "
Clark's Brook, 1 span of 65 feet " "
Westchester, 1 span of 66 feet deck plate girder.
Little River, 1 span of 66 feet "
Eel River, 3 spans of 66 feet "
Mill Creek, 3 spans of 66 feet "
Gilmore's Brook, 1 span of 66 feet "
Grant's Brook, 1 span of 87 feet "
Nigadoo, 1 span of 87 feet "
New Mills, 2 spans of 87 feet "

McKinnon's Brook, 2 spans of 87 feet, deck plate girder. Grand Bic, 1 span of 87 feet, deck plate girder. Trois-Pistoles, 3 spans of 108 feet, Deck Warren trusses.

Some of the above work has been completed and the remainder is under way. Materials for false work were provided and partly erected by the railway.

The following bridges supplied last year were completed and painted this year :—Millstream, 4 spans. Causapscal, 3 spans. Amqui, 1 span. Jacquet River, 3 spans. DeBert bridge, 2 spans put in and River Philip bridge, 3 spans doubled up last year were painted. Etchemin, 1 span was also painted. Work started last year was completed this year in putting in Mud Creek and Sodom bridges.

The following bridges have been doubled up :—Tête-à-Gauche, 5 spans. Nepisiguit, 3 spans.

Bedford bridge piers were strengthened and partly cased with concrete. Lydia Brook bridge abutments protected with brush and stone. Etchemin old span was disposed of and amount credited to the vote.

Original Construction

Amounts were paid for legal and engineering expenses, in connection with old construction claims at DeBert and on Dartmouth branch and for land at North Sydney.

Land Damages on O. & N. G. & C. B. Divisions.

Several Exchequer Court cases for original construction, Cape Breten, were settled.

Steel Rails and Fastenings.

Division, Sydney to Point Tupper : 14·69 miles of 56 lbs. 4 in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

Division, Mulgrave to Stellarton : 39·53 miles of 58 lbs. $4\frac{1}{4}$ in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

Division, Stellarton to Halifax : 0·68 miles of 58 lbs. $4\frac{1}{4}$ in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

Division, Truro to Moncton : 9·99 miles of 67 lbs. $4\frac{1}{2}$ in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

Division, Campbellton to Ste. Flavie : 24·67 miles of 67 lbs. $4\frac{1}{2}$ in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

Division, Ste. Flavie to Rivière du Loup : 3·24 miles of 67 lbs. $4\frac{1}{2}$ in. rails and fastenings were taken up and relaid with 80 lbs. 5 in. rails and fastenings.

To pay G. S. Mayes amount of claim for work done on the Intercolonial Railway at Pictou in 1886. Cheque for amount of claim was drawn and paid Mr. Mayes.

Prince Edward Island Railway.

Murray Harbour Branch.

The grading on the line to the 42nd mile has been practically completed, and work on all structures well under way. About 6,000 ties have been distributed and rails are being transported from Pictou. Arrangements have been made for transporting cars and engines to Murray Harbour to start ballasting and tracklaying.

Hillsborough River Bridge.

All dredging and pile driving is about completed. Five of the ordinary open caissons are in position, and concrete and masonry of the piers are being proceeded with. Two of the pneumatic caissons are ready and will be placed in position at once. Work on materials of abutment caissons has been started. Large quantities of all materials used in the work are on hand at the site.

To straighten line near Blueshank.

Under this vote, surveys were made, new line located and contract let for grading, &c., which is about three quarters completed.

I have the honour to be, sir,
Your obedient servant,

WM. B. MACKENZIE,
Chief Engineer.

D. Pottinger, Esq.,
General Manager, Government Railways,
Moncton, N. B.

INTERCOLONIAL RAILWAY.

OFFICE OF THE MECHANICAL ACCOUNTANT.
MONCTON, N. B., October 2, 1902.

SIR,—I beg to submit the following statements for the year ended June 30, 1902 :–

A. Statement showing the number of locomotives and of the various classes of cars.

B. Statement showing the locomotive and car mileage and the average number of passenger and of freight cars hauled per mile run by engines.

C. Abstract of locomotive returns.

D. Statement of the cost of locomotive power for each month during the year.

E. General statement of the expenses of the Mechanical Department.

Also a summary of the principal work done in the Moncton locomotive and car shops and in the shops at Halifax and Riviere du Loup.

During the year thirty-two locomotives, six second class sleepers, three dining cars, one first class passenger, five combined postal and express, five combined baggage and express, thirteen hundred and two box freight, and twenty stock cars were purchased on capital account, and added to the rolling stock of the railway.

Seven larger locomotives were purchased and charged to revenue account to replace seven of the smaller locomotives taken out of service.

I have the honour to be, sir,
Your obedient servant,

JOHN SUTTON,
Mechanical Accountant.

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton, N. B.

The following work was done in Moncton locomotive shops :—

37 locomotives received heavy repairs, 43 specific, and 74 general repairs, 12 boilers and 62 fireboxes were patched, 23 smokeboxes applied, 1 firebox, 7 new half side sheets, 2 new whole side sheets, were applied, tires were turned for 111 locomotives, 71 boilers were retubed, 41 cylinders rebored, 118 boilers were tested, 808 new and 18,781 repaired tubes and 80 new pilots were put in service. 132 locomotives were equipped with the master car builder's couplers.

Special work was done as follows :—

All screwing and nut tapping machines were transferred from blacksmith to machine shops. Two overhead cranes strengthened, furnace for boiler shop, lorry tracks for carrying material from and to the different shops, round houses, &c. A large number of machines were purchased and charged to capital account necessitating a large amount of work in putting up and building foundations, &c.

In addition to the above work the following material was turned out :—

183,922 bolts were forged, 1,329,065 lbs., of other forgings, 112,747 lbs. nuts were tapped.

THE OUTPUT OF THE BRASS FOUNDRY WAS:—

Brass castings	129,569	pounds
Brass journal bearings	219,627	"
Babbitt metal	9,000	"
Antimonial lead for journal bearings	103,516	"
Metallic packing	5,100	"
Total	466,712	pounds.

MONCTON CAR SHOPS.

The following cars were built new at Moncton shops :—

34 box cars, 21 platform cars, 6 coal cars, built to replace an equal number condemned. The box cars were 60,000 lbs., capacity cars, to replace a similar number of 24,000 lbs. capacity cars.

The following cars received heavy repairs :—

1 official car, 1 parlour car, 18 sleeping cars, 3 dining cars, 51 first class cars, 38 second class cars, 9 second class sleeping cars, 20 postal cars, 20 baggage cars, 23 freight vans, 7 snow ploughs, 4 wing ploughs, 3 flangers, and 382 freight cars.

The following received light repairs :—1 official car, 10 sleeping cars, 3 dining cars, 41 first class cars, 28 second class cars, 16 second class sleeping cars, 21 postal cars, 10 baggage cars, 16 freight vans, 1 steam shovel and 4,329 freight cars.

The following cars were scraped, filled, stained and varnished :—1 official car, 1 parlour car, 3 sleeping cars, 15 first class, 3 second class cars, 2 second class sleeping cars, 5 postal cars, 6 baggage cars.

The following cars were burnt off, repainted and varnished :—2 sleeping cars, 10 first clase cars, 13 second class cars, 1 second class sleeping car, 2 postal cars.

The following cars were painted and varnished:—2 sleeping cars, 14 first class cars, 20 second class cars, 6 postal cars, 7 baggage cars and 23 vans.

The following cars were renovated and varnished:—11 sleeping cars, 3 dining cars, 12 first class cars, 2 second class cars, 6 second class sleeping cars, 7 postal cars and 7 baggage cars.

The following were repainted :—181 box cars, 190 flat cars, 44 hopper cars, 7 gondolas, 4 cattle cars, 21 refrigerator cars, 6 flangers, 4 wing ploughs and 8 snow ploughs.

Special work was done as follows :—52 new wooden trucks were built and 167 new Sterlingworth steel trucks were put under freight cars ; 4,094 new chilled wheels were pressed on axles ; 1,056 second hand chilled wheels were pressed on axles ; 398 steel tired wheels were pressed on axles ; 745 new axles were turned ; 542 freight cars were changed from link and pin draw-bars to M.C.B. couplers; 131 freight cars were equipped with Westinghouse air brakes; 56 passenger cars had Westinghouse air brake changed from old automatic to emergency ; 85 passenger cars were fitted with Westinghouse air signal appliances, and 60 passenger cars were fitted with the American slack adjuster ; 81 passenger cars were changed from the Miller to M. C. B. couplers : 5 passenger cars were fitted with Pintsch gas ; 3 passenger cars were fitted with Pullman wide vestibules.

In addition to the lumber prepared for the above repairs, 490,000 feet was milled to store orders ; also a large amount of work was done to freight and baggage car trucks, chairs, footboards, ticket cases and station furniture, on account of store No. 1 ; also a number of new hand cars and lorries for the engineer's department.

RICHMOND SHOPS.

Heavy repairs, engines, 16; specific, 101; tires turned, 12 pairs; boilers tested, 27; boilers patched, 2; new pilots, 7; bolts forged, 28,200; bolts screwed, 37,400; boilers retubed, 9; fire-boxes patched, 6.

RIVIÈRE DU LOUP SHOPS.

Heavy repairs, engines, 28; specific, 168; tires turned, 28 pairs; boilers retubed, 18; boilers tested, 54; boiler tubes put in, 245; boilers patched, 1; fire-boxes patched, 11; bolts forged, 3,210; bolts screwed, 10,350.

WATER SERVICE

Has been maintained in efficient condition all over the line. Repairs were made at 65 stations.

A.—INTERCOLONIAL RAILWAY.

STATEMENT showing the Number of Locomotives and of the Various classes of Cars on July 1, 1901, and on June 30, 1902.

	Locomotives.	THE VARIOUS CLASSES OF CARS.																								
		First Class Sleepers.	Second Class Sleepers.	Parlour.	Dining Cars.	First Class Passengers.	Second Class Passengers.	Postal and Smoking.	Express and Baggage.	Box.	Refrigerator.	Platform, 10, 15, 20 and 30 tons.	Hoppers, 6 tons.	Gondolas, 15 and 20 tons.	Coal Cars, 20 tons.	Stock Cars.	Auxiliary and Tool Cars.	Vans.	Total.	Snow Ploughs.	Wing Ploughs.	Flangers.	Steam Ploughs.	Total.	Steam Cranes.
On hand serviceable July, 1901	248	27	19	5	4	107	93	28	43	3,811	77	2,483	913	63	577	86	9	95	8,440	49	10	22	2	83	..
Condemned July, 1901	....	....	....	....	....	1	....	....	2	73	7	38	86	89	47	17	....	4	364	....	....	..	....	....	..
Total	248	27	19	5	4	108	93	28	45	3,884	84	2,521	999	152	624	103	9	99	8,804	49	10	22	2	83	..
Received on capital account	32	....	6	....	3	1	....	5	5	1,302	....	.....	....	.....	....	20	.....	..	1,342	....	....	..	....	....	3
Changed from postal to auxiliary	....	....	....	....	....	.....	....	†1	....	.....	....	.....	....	.....	....	....	1	..	....	....	....	..	....	....	..
Total	280	27	25	5	7	109	93	32	50	5,186	84	2,521	999	152	624	123	10	99	10,146	49	10	22	2	83	3
Condemned, July, 1901	....	....	....	....	....	1	....	....	2	73	7	38	86	89	47	17	....	4	364	....	....	..	....	....	..
" during the year	8	....	....	....	....	....	....	....	....	94	1	106	35	9	22	4	....	1	272	2	....	..	....	2	..
Total	8	....	....	....	....	1	....	....	2	167	8	144	121	98	69	21	....	5	636	2	....	..	....	2	..
Less rebuilt	7	....	....	....	....	....	....	....	....	34	....	21	....	....	6	..	....	..	61	2	....	..	....	....	..
To be rebuilt	1	....	....	....	....	1	....	....	2	133	8	123	121	98	63	21	....	5	575	2	....	..	....	2	..
Add serviceable and repairing	279	27	25	5	7	108	93	32	48	5,053	76	2,398	878	54	561	102	10	94	9,571	47	10	22	2	81	3
Total	280	27	25	5	7	109	93	32	50	5,186	84	2,521	999	152	624	123	10	99	10,146	49	10	22	2	83	3

*Add. †Deduct.

MONCTON, June 30, 1902.

JOHN SUTTON,
Mechanical Accountant.

B.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive and Car Mileage, Year ended June 30, 1902.

	Locomotive Mileage.		Car Mileage.				Snow Ploughs.	Average Passenger.	Average Freight.
	Passenger.	Freight.	Passenger.	Express, Postal and Baggage.	Freight.	Total.			
1901.									
July	201,301	338,364	914,601	402,074	4,927,101	6,243,776		6·54	14·56
August	205,033	321,531	916,110	395,874	4,836,273	6,148,257		6·40	15·04
September	188,892	314,591	890,903	389,474	4,875,375	6,155,752		6·78	15·50
October	199,245	323,784	823,050	402,920	5,245,305	6,471,275	397	6·15	16·20
November	193,012	300,169	664,079	354,579	5,172,301	6,190,959	988	5·28	17·23
December	194,935	317,831	676,690	359,500	5,522,143	6,558,333	11,007	5·31	17·37
1902.									
January	199,102	315,660	667,149	357,182	5,136,468	6,160,799	20,346	5·14	16·28
February	179,697	281,271	594,554	319,824	4,270,508	5,184,886	28,561	5·09	15·18
March	200,665	307,727	728,275	354,535	5,380,228	6,463,038	1,583	5·39	17·48
April	194,348	294,228	714,274	363,984	5,432,816	6,511,074	1,793	5·55	18·46
May	205,931	299,600	729,628	378,697	5,516,002	6,624,327	74	5·38	18·41
June	205,744	285,286	781,129	380,604	5,099,715	6,261,448		5·65	17·88
	2,367,905	3,700,942	9,100,442	4,459,247	61,414,235	74,973,924	64,749	5·73	16·59

MONCTON, June 30, 1902.

JOHN SUTTON,
Mechanical Accountant.

C.—INTERCOLONIAL RAILWAY.

ABSTRACT of Locomotive Returns for Year ended June 30, 1902.

Months.	Consumption.						Average Consumption per 100 Miles.				
	Hours in Steam.	Locomotive Mileage.	Tons of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.	Miles run to 1 hour in Steam.	Pounds of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.
1901.											
July	65,429	674,284	21,699	27,012	13,548	11,349	10·31	7,208	4·00	2·01	1·68
August	63,870	661,691	21,508	26,421	13,789	11,202	10·36	7,281	3·99	2·08	1·69
September	62,747	635,901	21,670	24,126	10,976	10,862	10·13	7,633	3·79	1·73	1·71
October	67,386	668,778	23,580	25,566	11,666	11,283	9·92	7,898	3·82	1·74	1·69
November	63,360	626,731	22,997	23,898	10,800	9,209	9·89	8,219	3·81	1·72	1·47
December	65,921	651,704	26,604	27,749	12,191	10,821	9·89	9,144	4·26	1·87	1·66
1902.											
January	64,069	649,095	26,335	29,017	12,041	10,692	10·13	9,088	4·47	1·86	1·65
February	59,098	585,527	24,246	26,827	11,137	10,014	9·90	9,288	4·58	1·90	1·71
March	61,621	632,537	25,069	29,850	12,489	11,061	10·26	8,877	4·72	1·98	1·75
April	59,830	613,064	23,123	28,016	12,678	11,534	10·25	8,449	4·57	2·07	1·88
May	60,262	628,988	22,832	27,797	12,997	11,227	10·44	8,131	4·42	2·07	1·78
June	57,601	607,813	21,967	27,313	12,919	10,439	10·55	8,096	4·49	2·12	1·72
	751,191	7,636,113	281,630	323,592	147,231	129,693	10·16	8,261	4·24	1·93	1·69

MONCTON, June 30, 1902.

JOHN SUTTON,
Mechanical Accountant.

D.—INTERCOLONIAL RAILWAY.

STATEMENT of Locomotive Power for each month from July 1, 1901, to June 30, 1902.

Months.	Miles run by Locomotives.	Mechanical Superintendent's Salary, Clerks and Office Expenses.	Engineers' Wages.	Fuel.	Oil and Waste.	Repairs to Engines, Tenders and Tools.	Water.	Engine Houses and Turntables.	Total.	Average per 100 Miles.							
										Mech'l Supt. Salary.	Wages.	Fuel.	Oil and Waste.	Repairs.	Water.	Engine Ho's & Turntab's	Total.
1901.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.								
July	674,284	1,437 02	42,142 52	80,532 69	2,493 41	37,286 25	5,481 22	1,932 04	171,305 15	·21	6·25	11·94	·37	5·53	·81	·29	25·40
August	661,691	1,569 75	42,281 16	83,593 64	2,716 91	42,902 27	2,720 96	1,983 65	177,768 34	·24	6·39	12·62	·41	6·48	·41	·30	26·85
September	635,901	2,566 85	39,414 48	81,251 49	2,138 57	36,205 24	4,228 80	1,961 83	167,767 26	·40	6·20	12·78	·34	5·69	·66	·31	26·38
October	668,778	1,580 43	42,068 52	88,114 41	2,311 66	41,554 56	2,799 13	2,450 52	180,879 23	·24	6·29	13·17	·35	6·21	·42	·37	27·05
November	626,731	1,782 70	37,722 97	81,348 27	1,689 30	26,156 81	5,040 65	3,394 50	157,135 20	·28	6·02	12·98	·27	4·17	·81	54	25·07
December	651,704	1,792 90	41,023 07	100,237 46	2,868 09	38,371 15	3,670 50	3,848 16	191,811 33	·28	6·29	15·38	·44	5·89	·56	·59	29·43
1902.																	
January	649,095	1,925 33	42,041 78	100,417 98	2,015 48	21,095 28	3,228 54	3,901 94	174,626 33	·29	6·48	15·47	·31	3·25	·50	60	26 90
February	585,527	1,834 59	38,318 24	92,440 74	1,643 48	24,832 31	3,617 81	3,426 21	166,113 38	·31	6·55	15·79	·28	4·24	·62	·58	28·37
March	632,537	1,985 80	41,837 34	93,267 65	2,921 67	30,535 41	3,902 75	4,640 53	179,091 15	·31	6·61	14·75	·46	4·83	·62	·73	28·31
April	613,064	1,882 90	40,366 10	84,269 77	2,505 61	30,797 78	3,013 97	2,991 74	165,827 87	·31	6·58	13·75	·41	5·02	·49	·49	27·05
May	628,988	2,088 40	41,059 60	83,714 51	2,391 87	31,388 93	1,745 75	3,377 04	165,766 10	·33	6·53	13·31	·38	4·99	·27	·54	26·35
June	607,813	1,697 68	38,700 94	74,858 81	1,454 18	13,573 60	716 19	1,835 66	132,837 06	·28	6·37	12 32	·24	2·23	·12	·30	21·86
Total	7,636,113	22,144 35	486,976 72	1,044,047 42	27,150 23	374,699 59	40,166 27	35,743 82	2,030,928 40	·29	6·38	13·67	·35	4·91	·52	·47	26·59

MONCTON, June 30, 1902.

JOHN SUTTON,
Mechanical Accountant.

SESSIONAL PAPER No. 20

E.—INTERCOLONIAL RAILWAY.

GENERAL STATEMENT of the Expenses of the Mechanical Department, Year ended June 30, 1902.

The miles run by trains		6,067,947
" engines		7,636,113
" cars		74,973,924
" snow ploughs		64,749
	$	cts.
Cost of locomotive power	2,030,928	40
Cost of car repairs—		
Repairs to passenger cars	117,332	16
" postal, express and baggage	31,193	78
" freight cars and vans	304,035	58
" snow ploughs and flangers	7,510	87
Oil and waste for packing	6,992	33
	467,064	72
The cost of locomotive power—		
Per 100 miles by train		33 47
" engine		26 60
" cars and ploughs		2 71
The cost of repairs to cars and ploughs—		
Per 100 miles by train		7 58
" engine		6 03
" cars and ploughs		0 61
The cost of oil and waste for packing—		
Per 100 miles by train		0 12
" engine		0 10
" cars and ploughs		0 01
The cost of repairs to cars per 100 miles run by them—		
Passenger		1 29
Postal, express and baggage		0 70
Freight cars and vans		0 49
Ploughs and flangers		10 80

JOHN SUTTON,
Mechanical Accountant.

MONCTON, June 30, 1902.

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.
1901.							
July 1.	10.45	.....	Special..... ...	E. L. Watts.....	J. Oakleaf ..	187	Campbellton.....
" 2.	5.00	. .	"	P. Dumas	D. Boucher.....	215	Montmagny.....
" 2.	14.00	..	Shunting..... ...	....	H. Como..	A	St. John Yard...
" 6.	8.00	29	Freight	J. McFadzen... ..	J. Moore.....	45	Pointe du Chêne.
" 10.	12.45	.	Special.....	J. Royer	A. Connell.....	224	St. Moïse.....
" 12.	6.50	.....	"	J. T. McDonald ..	C. Wilson	92	4 miles west of West Bay Road.
" 13.	19.45	149	Accommodation...	S. Jones.....	G. Cloutier. ...	114	St. Hyacinthe...
" 15.	10.00	. .	Shunting..	....	S. Martin.....	122	Point Tupper....
" 16.	11.40	36	Accommodation...	A. E. Olive. .	A. Donald.....	119	Near Kent Jct...
" 20	12.50	.....	Special	N. Levesque ...	A. Connell.....	226	Ste. Flavie .
" 20.	21.45	75	Freight	J. B. Sirois.....	O. Gagnon.....	258	L'Islet.....
" 20.	21.55	45	Accommodation...	M. Audet.....	D. C. Gallan...	140	4 miles east of Assametquaghan.
" 22.	14.05	75	Freight	J. Colombe.	O. Gagnon.. ...	258	Rivière du Loup.
" 22.	18.00	...	Shunting.....	....	P. Fraser... ...	185	Pictou Yard.....
" 26.	....	.....	... .	... .	.....	. .	Mitchell..... ...
" 26.	7.00	. . .	Special..... . . .	R. H. Wilkins ..	J. Joncas.....	14	Alba..... .....
" 26.	13.00	..	Shunting... . ..	....	J. Hessian.....	188	D. W. T. Halifax.
" 27.	7.50	.....	....	....	C. Hunter....	127	Bell's siding.....
" 31.	3.30	. . .	Special..... . .	J. Fleming . ..	R. Jefferson	34	Stellarton.....
Aug. 2.	6.35	5	Freight	G. L. Nixon.....	N. Sinclair.. ...	84	Near Boundary Creek.
" 5.	24.45	... .	Shunting.....	....	A. Robbins. ...	35	Truro..... .
" 6.	22.40	151	Express	B. Walker	L. V. Sheedy...	72	St. Pierre .....
" 10.	12.00	37	Freight	E. S. Vye.....	J. Smith..	263	Newcastle.....
" 12.	19.50	.... .	Shunting.....	....	G. McDonald...	75	Sydney.....
" 12	22.40	75	Freight	J. T. McGinn. ...	J. Stewart.... .	269	Campbellton.....
" 13.	13.05	152	Express	J. Dionne	L. Sheedy	198	Lévis .....
" 13.	23.30	. ...	Shunting.....	....	J. G. Stockford.	122	Point Tupper....
" 14.	16.00	101	Accommodation...	J. F. Kelly.....	J. Campbell	50	Near New Glasgow.
" 16.	2.15	34	Express	Geo. Wal er... ..	\ J. Sharp. ...	.....	Assamatquaghan
" 16.	2.15	34	"	" ..	"	.....	" .
" 16.	2.15	34	"	"	"	.....	" ..
" 16.	21.45	48	Accommodation...	J. L. Hebert.. ..	A. Bernbe	170	River Ouelle... .
" 17.	17.15	.....	Shunting..... ...	.. ..	F. W. Welling..	40	Pointe du Chêne.
" 19.	22·30	. .	. ...	. .. .	.....	....	New Glasgow....
" 21.	13·45	....	Special.....	R. Hunter..... ...	A. Fryers . .	17	Amherst .....
" 23.	2·45	.....	"	C. W. Lutes.....	J. Gayley.	145	Spring Hill.....
" 24.	18·00	.....	Shunting.....	.. ..	T. O'Brien.....	89	D.W.T. Halifax..
" 25.	21·00	....	"	.....	B. Lutz	32	Campbellton ...

RAILWAY.

line of the Intercolonial Railway during the year ended June 30, 1902.

Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
B. Foley	Employee	While stepping off engine	Ankle sprained	
P. Dumas	"	Thrown down in car by quick-application of brakes.	Considerably injured	
T. Wilson	"	While coupling	Two fingers injured	
J. McFadzen	"	Thrown from rear platform of car.	Considerably injured	
V. Desrosiers	"	While shunting	Two fingers injured	
Neil Campbell	"	Struck by train while taking hand car off track.	Fatal	Accidental.
Geo. Laplante	Neither	Attempting to board moving train.	Right leg and foot injured	
James Cass	Employee	While shunting	Arm and side injured	
C. E. Freeze	"	Fell from engine while oiling it	Slightly injured	
N. Levesque	"	Slipped while stepping from van.	Ankle sprained	
J. Proulx	"	Fell in culvert while examining train.	Right thigh broken	
F. LeBel	"	Fell from rear of moving train	Slightly injured	
Earl (boy)	Neither	Holding on handle of box car door, fell under car.	Foot injured	
Wm. Heighton	Employee	While coupling	Shoulder injured	
M. Therien	Neither	Found on track with head cut off; supposed to have been struck by train.	Fatal	Accidental.
J. A. McLean	Employee	Slipped while getting off train	Ankle sprained	
Geo. Sullivan	"	Fell from engine in motion	Head cut	
William Barnes	"	While coupling	Leg injured	
J. Herritt	"	Foot caught between tender and draw-bar.	Foot injured	
R. Elliot	"	While walking over train, struck face against wire binding car stakes.	Lip cut	
J. O. Davison	"	While shunting	Foot injured	
T. Laliberte	Passenger	Fell while attempting to board moving train.	Fatal	Accidental.
P. Bannerman	Employee	While unloading freight, a box of tin fell on him.	Leg broken	
D. Patriquin	"	While shunting	Collar bone and ribs broken.	
J. Cummings	"	Struck by train while walking on track.	Fatal	Accidental.
A. Cote	G. T. R. employee.	Head crushed between cars	"	Accidental.
J. McInnis	Employee	While coupling	Finger injured	
McNeil (boy)	Neither	Jumped from moving van	Slightly injured	
A. J. Sharp	Employee	No. 34 train colliding with No. 75 train.	Fatal	Accidental.
Peter Stevens	"	" "	Seriously injured; since died.	No inquest.
A. Dorin	Postal clerk.	" "	Hand injured	
W. Lavoie	Neither	Supposed to have fallen between cars while stealing a ride.	Fatal	Accidental.
E. Trites	Employee	While shunting	Hand injured	
N. McLennan	Neither	Found on track, supposed to have been struck by train.	Fatal	Accidental.
R. Elliot	Employee	While turning switch lamp fell and hit him.	Head cut	
John Dewar	"	While coupling	Hand cut	
F. Ritchie	"	Stepped from moving car and fell against another car.	Collar bone broken	
A. Gallant	"	While coupling	Finger injured	

2-3 EDWARD VII., A. 1903

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.
1901.							
Aug. 26.	18·15		Mixed	J. McDonald	A. Sproull	86	Stellarton
" 27.	11·00		Shunting		W. McKay	117	Riv. du Loup
" 27.	19·05		Working	A. Lemieux	E. G. Heney	103	St. Philippe de Neri.
" 29.	6 00		Shunting		P. Fraser	78	Pictou
" 30.	18·30		"		J. Hall	14	Lévis
Sept. 2.		26	Express	D. McQuarrie	S. Trider	231	Folleigh
" 3.	18·15		Shunting		A. Dunbar	177	Mulgrave
" 4.	18·40	86	Accommodation	D. McIntosh	D. Duncan	169	New Glasgow
" 6.	12·30		Shunting		H. Cummings	131	Stellarton
" 6.	23·18	10	Express	J. Daley	J. Smith	155	Coldbrook
" 7.	10·50		Special	W. H. Thomson	A. McCabe	42	Derby Junction
" 9.	18·00	33	Express	G. C. Johnston	W. E. Turner	198	1½ miles west of St. George siding
" 10.	9·00		Working	J. Dorion	W. Fraser	219	2 miles east of Little Métis.
" 10.	9·20		Ballast	C. D. Phillips	J. B. Champion	221	D.W.T. Halifax
" 14.	13·00		Special	H. B. Hanes	T. Edwards	154	Milford
" 19.	23·00		Shunting		J. Cloutier	183	Pt. St. Charles
" 21.	16·30		"		H. Cummings	121	Stellarton
" 26.	4·35		Special	A. J. Shanrahan	W. Atkinson	133	Sydney
" 26.	17·00						Truro
" 27.	23·00		Special	E. Perron	O. Gapson	258	Ste. Flavie
" 30.	15·30		Shunting		W. McKay	117	Riv. du Loup
" 30.	19·35		"		W.G.McDonald	75	Sydney
Oct. 7.	11·30						Halifax
" 8.	11·30		Shunting		G. Cameron	195	Near Lévis
" 8.	19·35		"		A. Sterling	A	St. John
" 9.	11·35		"		R. James	189	"
" 10.	24·00		"		A. Robbins	35	Truro
" 12.	8·15		Special	E. Herrett	A. Probert	87	Westville
" 13.	5·50		"	M. McGillivray	J. Cummings	176	New Glasgow
" 15.	9·00		"	F. Black	H. Thomson	178	"
" 19.	6·20		Working	C. W. Phillips	W. Smith	216	Near Truro
" 20.	22·10		Special	Z. Filteau	J. Couturier	205	Hadlow
" 22.	14·00		Shunting		W. H. Anderson	94	St. John
" 24.	7·30		"		W. G. McDonald	75	Sydney
" 24.	15·30		"		"	75	"
" 25.	12·15		"		J. G. Stockford	207	Cumming's Ballast Pit.
" 26.	16·25	109	Freight	C. Couchy	J. Dussault	38	St. Leonard
" 28.	12·45	25	Express	W. J. Dickson	C. Atkinson	169	Memramcook
" 28.	12·30		Shunting		M. Tobin	190	D. W. T., Halifax

* Jury recommended that strong measures be taken to prevent boys from trespassing unnecessarily

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1902—*Continued.*

Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
Mrs. W. Sutherland.	Neither.	Walking on track, struck by engine	Shoulder dislocated, leg cut.	
N. Plourde	Employee	While coupling	Thumb taken off	
A. Laliberte	"	"	Finger injured	
C. J. McDonald	"	"	Slightly injured	
L. P. Hardy (boy).	Neither.	Fell from cars which were being shunted and was run over.	Fatal	Accidental.
S. E. Hue	Passenger	Fell from moving train	Face cut, shoulder hurt	
J. Byers	Employee	While coupling	Considerably injured	
A. McDonald	Neither.	Crossing track with team, struck by train.	Slightly injured.	
M. Seaman	Employee	While coupling	Fingers injured	
Mrs. J. Lambert	Passenger	Fell while getting off moving train	Seriously injured, since died.	
T. Graham	Employee	While coupling	Slightly injured	
Mr. Spradley	"	Fell from moving train.	Considerably injured	
J. Poirier	"	Trying to board moving train	Foot badly injured	
Miss Lovett (little girl).	Neither.	Cable of plough broke and knocked down post which hit her.	Jaw broken.	
K. McKenzie	Passenger	Fell between station platform and train.	Knee slightly injured	
J. Johnston	Neither.	Walking on track intoxicated, struck by engine.	Toes cut off.	
Wm. McDonald (boy).	"	Jumped from cars which were being shunted.	Fatal	*Accidental.
R. A. McDonald	Employee	While uncoupling.	Hand injured	
R. Campbell	"	While closing refrigerator, car door was strucck by lever.	Head slightly injured.	
J. B. Thibault	"	While coupling	Hand injured	
D. Levesque	"	While shunting.	Foot injured	
W. J. McPherson	"	While coupling	Hand injured	
J. Ryan	"	Tripped over rail in yard.	Leg injured.	
C. Magnan	Neither.	Walking on track, struck by engine	Slightly injured	
A. Coates	Employee	While coupling	Fingers injured.	
W. Sullivan	"	While getting on front of moving engine.	Knee cap dislocated.	
T. O'Brien	Neither.	Asleep under box car which was being moved.	Leg slightly injured.	
A. A. Smith	Employee	While coupling	Fingers injured.	
A. Issard	Neither.	Crossing between cars	Foot injured	
F. Herrett	Employee.	While shunting.	Hand injured	
P. LeBlanc	"	Climbing between cars, foot caught between drawbars.	Toes injured	
O. Begin	"	Caught between car and engine while shunting.	Fatal	Accidental.
A. Ward	"	Caught between drawbars while shunting.	Seriously injured	
D. Patrignin	"	While coupling	Finger injured	
W. McPherson	"	"	"	
A. H. McDonald.	"	"	Hand injured.	
L. Lapointe	"	While unloading freight	Foot injured	
A C. Landry.	Neither.	Horse ran away and threw him in front of engine.	Fatal	Accidental.
A. Steele	Employee.	While shunting.	Toes injured	

on railway property.

2-3 EDWARD VII., A. 1903

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Train.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.
1901.							
Oct. 30.	3 25	76	Freight	J. Beaulieu	A. Connell	243	Little Metis
" 31.	2·00		Shunting		C. McHugh	118	Moncton
" 31.	10·00	56	Freight	B. McLellan	E. Kennedy	210	Near Merigomish
" 31.	12·00		Shunting		J. Finney	35	Truro
Nov. 1.	16·00		Working	A. Vachon	O. Halle	104	Hadlow
" 11.	15·10		Shunting		H. Como	A	St. John
" 13.	2·00		"		S. Stewart	35	Truro
" 16.	16·53	8	Express	J. H. Sproule	C. F. Whitney	55	Rothesay
" 18.	12·10		Special	D. McKenzie	A. B. Purdy	273	West River
" 18.	18 50		Shunting		W. Keith	5	Sydney
" 19.	16·35		Special	J. Baxter	T. Turpinet	26	New Glasgow
" 20							Elmsdale
" 22.	5·30		Shunting		J. Deboo	126	Chaudiere Jct
" 22.	7·30		"		T. Hennessy	20	Truro
" 23.	17·00						Springhill
" 25.	13·05	147	Freight	J. Therrien	W. Blanchett	1	Drummondville
" 26.	17·14		Special	R. J. McNeil	F. Satchell	133	Shenacadie
" 27.	15·25		Shunting		J. Gorham	242	Riv. du Loup
Dec. 3.	22·30				N. Pearson	71	"
" 7.	7·50		Special	A. J. Shanrahan	F. Satchell	130	Orangedale
" 10.	22·30		"	N. St. Pierre	H. Johnston	81	Drummondville
" 11.	5·40		"	J. S. Weatherbee	T. W. Hennessey	106	Stewiache
" 24.	22·45		Shunting		H. Cutten	124	Mulgrave
" 27.	8·30		"		Sam'l Ritchie	189	St. John yard
" 28.	11·45	42	Freight	J. A. Bernier	J. Deveraux	137	Amqui
" 30.	21·25	34	Express	G. Levesque	C. E. Sawyer	76	Near R. du Loup.
" 30.	21·25	34	"	G. Levesque	C. E. Sawyer	76	" "
" 31.	10·40	39	Freight	T. C. Ayer	J. Williamson	192	Eel River
1902.							
Jan. 1.	19·20		Shunting		C. McHugh	118	Moncton
" 8.	14·20	37	Freight	E. S. Vye	D. McQuarrie	259	Gloucester Junc.
" 10.	14·25		Special	E. K. O'Brien	O. B. Purdy	101	Ferrona Junc
" 10.	19 30		Shunting		G. Sorois	32	Campbellton
" 11.	8·15	39	Freight	J. Swetnam	J. Williamson	192	Bathurst
" 14.	9·00		Shunting		G. Anderson	165	Moncton
" 18.	20·00		"	H. Davis	T. Townsend	123	Pt. Tupper
" 20.	15·00		"		J. McLellan / M. Tobin	188 / 191	Halifax
" 22.	5·45		"		J. Phinney	30	Truro
" 23.	23·50		Special	G. A. McKay	G. S. Baxter	62	Westville
" 29.	2·45	76	Freight	T. Coffey	W. Gross	283	Belmont
Feb. 7.	19·00		Shunting		L. Starratt	20	Truro
" 8.	24·10		Mail—Special	J. L. Barnhill	J. Flavin	161	¼ mile west of Grand Lake.
" 9.	21·00		Special	J. L. Barnhill	R. Simpson	142	Westchester
" 9.	21·30		Shunting		O. Gilker	37	Ste. Flavie
" 12.	2·30		Special	J. T. McDonald	B. Titus	14	N. Sydney Junc
" 12.	15·30	5	Freight	J. Henderson	J. Stratton	254	Hampton

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1902—*Continued.*

Name of Person injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury
Z. Sheehan	Employee	Fell while trying to catch moving van.	Leg broken	
J. F. Armstrong	"	While coupling	Finger smashed	
Mrs. Jas. Smith	Neither	Attempting to cross track in front of moving train.	Fatal	Accidental.
W. C. Layton	Employee	While shunting	Side injured	
F. LaPointe	"	"	Foot injured	
J. Murray	"	"	Hand injured	
T. Hayman	"	While coupling	Finger broken	
J. Stewart	"	Crossing track, struck by engine	Head cut, leg bruised	
D. McKenzie	"	Fell while trying to board moving train.	Fatal	Accidental.
A. Gotro	Neither	Crossing track, struck by engine	Leg cut off	
Geo. Barber	Employee	While shunting	Fatal	Accidental.
W. Murphy (deaf mute).	Neither	Found on track, supposed to have been struck by train.	"	Accidental
O. Couture	Employee	While coupling	Hand injured	
L. Bruce	"	While shunting	Fingers injured	
A. J. Munro	"	An anvil fell on his foot	Toe injured	
W. Dupont	"	While coupling	Hand injured	
D. C. McDonald	"	Trying to make coupling	"	
J. Levesque	"	Struck by engine while walking on track.	Fatal	Accidental.
F. Durocher	"	Walking on track, struck by engine	Leg cut off	
R. Kennedy	"	While coupling	Arm injured	
R. Hould	"	"	Fatal	Accidental.
J. S. Weatherbee	"	Trying to climb on car, fell under wheels.	Leg cut off	
Arthur McLean	"	While coupling	Two fingers cut off.	
John O'Neill	"	"	Thumb injured.	
J. Martin	"	Fell from car while shunting	Side injured.	
C. E. Sawyer	"	Train ran off the track	Leg broken.	
R. Marquis	"	" "	Hands burned.	
Mrs. J. K. Hamilton.	Passenger	Train stopped suddenly throwing her down in car.	Ankle broken.	
E. L. Seamens	Employee	Fell between cars while shunting.	Legs cut off; since died.	No inquest.
N. Norton	"	Getting off van, fell under wheel.	Foot injured.	
Arthur Murray	"	While shunting	Hand injured.	
W. Smith	"	While coupling	"	
S. Hayward	"	"	Finger injured.	
W. Graves	"	"	Hand injured.	
L. Embree	"	"	Thumb injured.	
H. Andrews	Neither	Trying to cross between moving cars.	Foot injured.	
J. H. Marr	Employee	While coupling	Hand injured.	
N. Gray	Neither	Trying to jump from moving train.	Leg crushed; since died.	Accidental.
C. Green	Employee	While riding on pilot of engine	Body crushed; since died.	Accidental.
N. Moor	Neither	Struck by engine	Head and hand injured.	
Mrs. A. J. Wright,	Passenger	Car left track	Slightly injured.	
Miss N. Wright,	"	"	" "	
Master A. E. Wright,	"	"	" "	
Miss N. Viner.	"	"	Right eye cut.	
A. A. Fisher	Employee	Caught between two cars.	Hip and leg injured.	
Z. Berubé	"	While coupling	Finger injured.	
D. A. Cameron	"	Fell from top of box car	Shoulder dislocated; arm injured.	
Mrs. McCarron	Neither	Crawling under moving car	Foot injured.	

2-3 EDWARD VII., A. 1903

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.
1902.							
Feb. 15.	10·00	.....	Shunting.....	.....	O. Godsoe.....	52	St. John .....
" 15.	12·40	.....	Special	J. Coulombe.....	F. Berubé.....	264	Isle Verte.....
" 17.	13·25	64	Express	C. J. Rhodes.....	W. McLeod.....	86	Windsor Junc...
" 20.	4·00	.....	Special	A. Lemieux.....	O. St. Pierre....	268	L'Islet .....
" 22.	8·20	33	Express	G. A. Walker....	E. Parsons. ...	71	Lévis .....
" 23.	12·00	.....	Special	A. Gagnon.....	S. Ferguson ...	113	Drummondville..
" 28.	7·15	40	Freight.....	W. F. Ferguson...	A. Cook.....	259	Gallagher Ridge.
" 28.	16·15	.....	.....	.....	J. Clark.....	231	Halifax.....
Mch. 6	21·15	.....	Shunting.....	.....	A. Fogo.....	75	Sydney.....
" 11.	14·32	34	Express	A. B. Vance.....	J. Clark.....	232	Alton Crossing..
" 18.	19·00	.....	Shunting.....	.....	Thos. Townsend.	123	Pt. Tupper.....
" 22	9·30	.....	Special	J. T. McDonaid ..	J. Gazely.....	14	½ mile west of McIntyre's lake.
" 24.	14·00	.....	Shunting.....	.....	A. Urquhart....	79	Stellarton.....
Apl. 1.	7·40	145	Express	S. Jones	J. Houston.....	132	Mitchell.....
" 8	7·45	.....	Shunting.....	.....	G. Sears.....	32	Campbellton.....
" 12.	3·30	.....	"	.....	J. Jones.....	442	Mulgrave.....
" 14.	7·13	83	Accommodation...	G. M. Armstrong.	A. H. Fryers....	354	Aulac.....
" 19.	17·00	.....	Special.....	L. S. Paulet.....	F. Cloutier.....	120	Hadlow.....
" 20.	16·15	.....	Shunting.....	.....	J. J. Flavin	440	Richmond.....
" 25.	20·15	.....	"	.....	O. McGrath ..	19	D.W.T. Halifax.
" 27.	14·00	.....	"	.....	W. Megarity ...	.....	St. John .....
" 28.	21·25	86	Express	J. L. Chisholm ...	Wm. Wall.....	152	Elmsdale.....
May 2.	11·00	.....	Special..	J F. Kelly.....	J. S. Mitchell...	50	Trenton yard....
" 3.	8·00	.....	"	G. A. McKay.....	S. Black	85	Oxford Jct .....
" 4.	21·00	.....	"	D. Marquis.	W. Brooks... / O. Gagnon....	181 / 74	St. Fabien. ...
" 6.	24.46	34	Express	E. McKenna.....	J. Gilker..	71	Little Metis.....
" 6.	7·45	.....	Shunting.....	.....	A. Fogo	47	Sydney River ...
" 9.	7·50	169	Freight.....	C. Couchy	G. Cloutier.....	81	Hadlow.....
" 9.	19·45	9	Express	J. B. Pollock	J. Hessian	153	Halifax .....
" 14	5·57	14	Freight.....	R. Doyle	G. Feetham. ...	114	2 miles east of Stewiacke.
" 14.	20.30	.....	Working	W. N. Bovard....	D. Cool.	217	Bathurst.....
" 16.	14·05	.....	Special.....	F. Dixon.....	M. O'Shaughnessy.	211	Belledune.....
" 19.	14·13	25	Express	W. McClafferty ..	W. J. Hunter...	61	Bloomfield . .
" 19.	10·16	76	Freight.....	J. L. Hebert.....	S. Gorham.....	247	Isle Verte.....
" 21.	12·30	41	"	J. B. Dubé.....	J. Deverance ...	261	Princess Siding..
" 29.	11·15	58	"	T. Quinen	R. Wilson . ..	275	Windsor Jct.....
" 31.	14·40	.....	Shunting.....	.....	W. Coffey.....	52	St. John .....
June 1.	10·00	39	Freight.....	W. W. Irving	T. W. Henry...	348	Jacquet River...
" 3.	7·30	.....	Shunting.....	.....	P. O'Toole ...	43	Richmond .....
" 7.	10·00	.....	"	.....	A. Dunbar.....	442	Mulgrave . . .
" 9.	17·00	42	Freight.....	J. Michaud.....	T. Matheson	266	St. Alexis.....
" 12.	13·00	.....	Shunting.....	.....	H. Cummings...	79	Stellerton.. ....
" 14.	8·22	.....	Special (passenger)	A. Robbins.....	W. J. Ellis.....	278	Greenville.....
" 15.	18·20	.....	Mail (special).....	R. Doyle.....	N. Purcell.....	157	Ferry crossing, Halifax.
" 18.	13·00	.....	Special.....	R. W. Orchard ...	E. B. Price.....	100	Moffatt's Bridge.
" 19.	11·00	16	Freight	J. A. Hughes.....	J. McAuley	254	Belmont... .....

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1902—*Continued.*

Name of Person injured.	Whether Passenger or Employee.	Particulars of Accidents.	Extent of Injury.	Verdict of Coroner's Jury.
Fred. Ogilvie	Employee	While coupling	Hand injured.	
C. Morin	"	"	Two fingers injured.	
Jane Pike	Neither	Struck by train	Right leg injured.	
L. P. Wilson	Employee	While coupling	Hand injured.	
C. E. Marquis	"	"	" "	
S. Ferguson	"	Fell from tender of engine	Foot injured.	
J. W. Patterson	Passenger	Train stopped suddenly, throwing him against arm of seat.	Head cut.	
J. Harris	Neither	Trying to cross track; struck by engine.	Fatal	Accidental.
W. Moore	Employee	While coupling	Hand injured.	
C. Fisher	Neither	Crossing track in team; struck by train.	Slightly injured.	
D. O'Hanley	Employee	While coupling	Hand injured.	
Capt. A. Stewart	Neither	Lying on track; struck by train	Fatal	Accidental.
Paul Good	Employee	While shunting	Hand injured.	
H. Lacharite	Passenger	While boarding moving train	Head cut	
B. Hachey	Employee	While coupling	Thumb injured	
J. Byers	"	"	Finger injured	
Ed. King	Neither	Trying to cross track in front of train.	Slightly injured	
F. Nolan	Employee	While coupling	Thumb injured.	
N. Perrie	"	Caught between deals and end of car.	Hand injured	
J. Drake	"	While coupling	"	
Jas. Murray	"	"	Fingers injured	
Mr. Sutherland	Passenger	Jumped from moving train	Head badly cut	
F. Strickland	Employee Steel Co.	While coupling	Hand injured.	
E. L. Briggs	Employee	While shunting	"	
Lieut. J. Irving	Passenger	Fell from moving train	Slightly injured.	
M. Mullin	Employee	Trying to board moving train	Toes injured	
A. H. McDonald	"	Coupling cars	Fingers injured	
X. Jacques	Neither	Struck by train	Foot injured	
R. Conrad	Employee	Jammed between truck and engine	Leg slightly injured	
R. Rodgers	Neither	Walking on track, struck by train.	Fatal	Accidental.
W. King	Employee	Fell on rail	Hip injured.	
M. Dooling	"	While shunting	Fingers injured	
Mrs. Fillmore and little boy named Brown.	Neither	Trying to cross track, struck by train.	Fatal to both	Accidental.
N. Sirois	Employee	Trying to board moving train	Back and legs injured	
J. Martin	"	Fell between cars	Head hurt	
S. Lindsay (boy)	Neither	Crossing track between cars	Leg injured.	
H. Wetmore (boy)	"	Playing on track, fell under cars	Foot injured	
— Doyle (boy)	"	Trying to board moving train	Hand and head injured	
F. Druhan	Employee	While coupling	Fingers injured	
J. Clancy	"	Fell from moving engine	Fatal	Accidental.
C. Porier	"	While unloading freight	Hand hurt	
D. W. Gordon	"	While shunting	Fingers hurt	
Two children (immigrants)	Passengers	Car left track	Slightly injured	
C. Purcell	Neither	Crossing track in team, struck by train.	"	
Unknown man	"	Struck by train	Fatal	Accidental.
Jas. McCurdy	Passenger	Thrown against window casing by train stopping quickly.	Eye slightly cut	

INTERCOLONIAL

RETURN of Accidents and Casualties which have occurred in Canada on the line

Date.	Time of Day.	No. of train.	Description of Train.	Name of Conductor.	Name of Driver.	No. of Engine.	Place of Accident.
1902.							
June 19.	16·00	.....	Shunting.....	.. ..	John Walsh	443	Halifax .....
" 23.	3·00	.....	"	.. ..	A. B. Purdy....	86	Pictou .....
" 23.	13·10	33	Express	F. Derouin . . .	H. Goddard	125	Lévis . .....
" 24.	7·00	...	Shunting.....	.....	G. Sears.....	455	Campbellton.....
" 24.	19·20	86	Express	J. Buchanan . .	W. Wall.....	154	1½ miles west of Elmsdale.
" 25.	8·20	43	Freight	A. Rioux	T. Berubé	256	St. Luce ..... .
" 26.	13·50	.....	Shunting.....	....	W. Megarity ...	441	St. John .....
" 28.	11·00	86	Express	J. Martin.....	D. McLennan ..	115	1 mile east of Shubenacadie.
" 28.	17·50	....	Shunting..	....	M. Tobin..... J. McLellan..	188 43	Halifax..... .
" 30.	4·30	..	.....	....	.....	.....	1½ miles west of Amqui.
" 30.	.....	.....	... .	....	....	... .	Pt. St. Charles ..

GENERAL MANAGER'S OFFICE,
MONCTON, N.B., October 8, 1902.

SESSIONAL PAPER No. 20

RAILWAY.

of the Intercolonial Railway during the Year ended June 30, 1902—*Concluded.*

Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
G. Sullivan	Employee	Standing on box car, struck bridge while passing under it.	Slightly injured	
J. McDonald	"	While shunting	Hand injured	
C. Goulet	"	Struck by engine	Hip dislocated	
J. Laviolette	"	While coupling	Hand injured	
B. Green	Neither	Walking on track, struck by train.	Slightly injured	
C. Morin	Employee	Fell from top of box car	Leg slightly injured	
W. H. Needham	"	While coupling	Fingers cut off	
S. McKinnon	Passenger	Fell from moving train	Head cut	
R. McLellan	Employee	Trying to board moving train	Legs crushed, since died.	No inquest.
J. Desrosiers	Neither	Found on track, supposed to have been struck by train.	Fatal	Accidental.
Mr. Shields	G.T.R. employee.	" "	"	No inquest.

WINDSOR BRANCH RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N.B., September 23, 1902.

SIR,—I have the honour to submit the following statements showing the results of the working of the Windsor Branch Railway for the year ended June 30, 1902.

No. 1.—Revenue account.

No. 2.—Maintenance of way and works.

No. 3.—General balance.

No. 4.—Statement of earnings.

I also send you the report of the engineer of maintenance on the condition of the permanent way and works.

This line, 32 miles in length, was operated during the year by the Dominion Atlantic Railway Company on the same terms as last year, the company being allowed to retain two-thirds of the gross earnings, the balance, one-third, being paid over to the government, the latter maintaining the line.

The gross earnings show an increase over those of last year as follows :—

Earnings 1901–2	$49,604 59
Earnings 1900–1	47,261 89
Increase	$2,342 70

The earnings from freight traffic increased $3,021.07. There was a decrease of passenger earnings of $682.05.

The net earnings for the year were $33,228.32.

The permanent way and works received necessary repairs and are in good order.

I have the honour to be, sir,
Your obedient servant,

D. POTTINGER,
General Manager, Government Railways.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

No. 1.—WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT, Year ended June 30, 1902.

Previous Year.	Expenditure.	Year ended June 30, 1902.	Previous Year.	Earnings.	Year ended June 30, 1902.
$ cts.		$ cts.	$ cts.		$ cts.
16,862 66	Maintenance of way and works..	16,376 27	16,834 60	Passenger traffic ..	16,152 55
30,399 23	Balance..	33,228 32	29,279 13	Freight traffic	32,300 20
			1,148 16	Mails.	1,151 84
47,261 89		49,604 59	47,261 89		49,604 59

E. & O. E.,
MONCTON, N.B. June 30, 1902.

T. WILLIAMS,
Chief Acountant and Treasurer.

No. 2.—WINDSOR BRANCH RAILWAY.

MAINTENANCE OF WAY AND WORKS, Year ended June 30, 1902.

Previous Year		Year Ended June 30, 1902.
$ cts.		$ cts.
9,328 30	Repairs of track.....	9,867 23
1,306 78	Rails and fastenings.....	197 38
2,173 59	Ties.....	3,937 59
651 00	Bridges.....	670 53
49 81	Signals.....	66 78
169 14	Culverts, cattle guards, etc.....	201 78
34 15	Wharf at Windsor..	.....
1,342 42	Buildings and platforms.	518 28
74 00	Hand cars and trollies.....	0 90
354 11	Removing snow and ice.....	359 75
205 05	Tools and repairs of same.....	209 66
639 61	Fencing.....	223 24
488 52	Accountant's office and expenses.....	570 15
46 18	Miscellaneous.....	81 32
16,862 66		16,376 27

E. & O. E.,
MONCTON, N.B., June 30, 1902.

T. WILLIAMS,
Chief Accountant and Treasurer.

No. 3.—WINDSOR BRANCH RAILWAY.

General Balance, Year ended June 30, 1902.

Dr.			Cr.		
		$ cts.			$ cts.
1902. June 30.	To Stores	384 09	1902. June 30.	By Dominion Accounts	633 33
	Old Rails	141 04			
	D. A. Ry	108 20			
		633 33			633 33

E. & O. E.,

Moncton, N.B., June 30, 1902.

T. WILLIAMS,

Chief Accountant and Treasurer.

No. 4.—WINDSOR BRANCH RAILWAY.

Monthly Statement of Receipts, One-third Earnings.

Month.	Passenger Traffic.	Freight Traffic.	Mails.	Totals.
1901—July	1,893 20	2,125 72	96 91	4,115 83
August	2,143 89	2,268 07	96 90	4,509 86
September	2,484 25	3,631 97	96 91	6,213 13
October	1,965 09	4,171 09	96 91	6,233 09
November	1,111 57	3,971 56	96 90	5,180 03
December	1,077 48	2,710 85	96 91	3,885 24
1902—January	825 66	2,984 28	94 46	3,904 40
February	672 64	1,899 45	94 45	2,666 54
March	867 13	2,220 92	94 45	3,181 50
April	820 65	2,255 71	95 68	3,172 04
May	990 91	2,203 42	95 68	3,290 01
June	1,300 08	1,857 16	95 68	3,252 92
	16,152 55	32,300 20	1,151 84	49,604 59

E. & O. E.,

Moncton, N.B., June 30, 1902.

T. WILLIAMS,

Chief Accountant and Treasurer.

INTERCOLONIAL RAILWAY, OFFICE OF THE ENGINEER OF MAINTENANCE,
MONCTON, N.B., September 18, 1902.

SIR,—I have the honour to submit herewith the report of the maintenance of the Windsor Branch, for the year ending June 30, 1902.

TRACK.

During the past year 196 feet of four and a quarter inch rails which were worn at the ends were taken up. 43 feet of four inch, and 296 feet of four and a quarter inch rails were relaid

TIES.

14,671 ordinary ties have been renewed during the year.

SEMAPHORES AND SWITCHES.

Necessary repairs were made to semaphores and switches throughout the line where necessary.

FENCING.

40 rods of Page wire fence were erected during the year, and existing fences were overhauled and repaired.

BUILDINGS AND PLATFORMS

At Windsor, repaired freight platform. Part of the roof freight shed reshingled. Repaired clapboards and casing on station, and made repairs to the dwelling apartments. Necessary repairs were made to the passenger platforms.

At Mount Uniacke, built a temporary tank house 14' x 16', repaired passenger platform, put new sills under station and reshingled part of roof. Put a new door between waiting room and private apartments, and done necessary glazing to windows. Shingled and repaired freight shed.

At New Port, rebuilt passenger and freight platforms.

At Beaver Bank, repaired station platform.

BRIDGES AND CULVERTS

At Wilkins Bridge, tore down and rebuilt 30 cub. yds. masonry.

At Garlands Crossing, necessary repairs made to the masonry work of culvert.

At Sackville, Bridge, necesary repairs were made.

GENERAL.

Repaired buffer at Beaver Bank. Repaired scales at Ellershouse. Cattle guards and farm crossing gates were repaired where necessary.

I have the honour to be, sir, your obedient servant.

T. C. BURPEE.
Eng'r Maint. of W. & W.

J. E. PRICE, Esq.,
General Superintendent,
Moncton, N. B.

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE GENERAL MANAGER OF GOVERNMENT RAILWAYS,
MONCTON, N.B., September 24, 1902.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway, for the fiscal year ended June 30, 1902.

I inclose the report of the Superintendent including statements of the various accounts, also the report of the Chief Engineer on the works charged to Capital Account.

The mileage of railway in operation was the same as last year, 209 miles.

The expenditure on Capital account during the year was $475,997.04. The two principal items being for the Murray Harbour Branch and for the Hillsborough bridge.

The total cost of the railway on June 30, 1902, was.....	$4,599,825 15
The working expenses for the year were.....	270,159 97
The gross earnings were.....	197,999 93
Difference.....	72,160 04

The gross earnings show an increase of $4,116.45 over the previous year, the increase was in passenger traffic.

There was an increase of working expenses of $8,393.73 due to the additional work done and the increased cost of labour and materials used.

The necessary work was done to maintain the permanent way and works, and the rolling stock, and they are in a state of efficiency.

I have the honour to be, sir, your obedient servant,

D. POTTINGER,
General Manager, Government Railways.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals, Ottawa, Ont.

PRINCE EDWARD ISLAND RAILWAY,
SUPERINTENDENT'S OFFICE, CHARLOTTETOWN, P.E.I.,
August 18, 1902.

SIR,—I have the honour to submit the following report on the working of the Prince Edward Island Railway for the fiscal year ended June 30, 1902 :—

I also inclose the report of the mechanical superintendent, and the following statements prepared by the accountant and auditor and the mechanical accountant and storekeeper :—

No. 1. Capital account.
2. Revenue account.
3. Locomotive power (abstract No. 1).
4. Car expenses (abstract No. 2).
5. Maintenance of ways and works (abstract No. 3).
6. Station expenses (abstract No. 4).
7. General charges (abstract No. 5).
8. General store account.
9. General balance.
10. Comparative statement of averages.

A. Monthly statement of the cost of locomotive power.
B. Statement of performance and consumption of locomotives.
C. Monthly statement of car mileage.
D. Statement showing number of locomotives, cars, snow ploughs and flangers.
E. Comparative statement of the expenses of the mechanical department.

The mileage of the railway in operation is the same as last year, 209 miles.

CAPITAL ACCOUNT.

The total expenditure to June 30, 1901, was $4,123,827.21.

The additions during the year were as follows :—

Extension of sidings	$	4,998 06
New machinery		5,000 00
Steel rails		6,000 00
Reducing curves		9,999 88
Hillsborough bridge		177,595 53
Murray Harbour Branch		272,404 47
Making the total cost on June 30, 1902	$	4,599,825 15

Extension of sidings.—A number of sidings were lengthened to the extent in all of 3,834 feet. (Particulars given under the head of 'sidings.')

New machinery.—An air compressor and pneumatic tools, a new lathe, a stone crusher and a number of jack screws were added to the plant of the railway.

Steel rails.—Good serviceable second-hand rails were purchased from the Intercolonial Railway.

Reducing curves.—This consisted of 9,100 feet of grading, involving the removal of about 25,000 cubic yards of earth. The bridge over Wilmot River was raised 5 feet, and 1,700 feet of track had to be raised on an average of 4 feet. A cedar bridge was built over the Blueshank road, providing an under crossing instead of a grade crossing as formerly. The new work does away with three 9°, one 8° and two 6° curves, and saves 1,000 feet of track. Mr. Thomas Campbell is the contractor, and the work is nearly completed.

Hillsborough bridge.—Very good progress is being made at this undertaking. (Particulars are given by the chief engineer in his report).

Murray Harbour Branch.—The grading is nearly completed, and tracklaying has begun. (Further details are given by the chief engineer in his report). Two locomotives were purchased, and four passenger cars were built and charged under this head.

REVENUE ACCOUNT.

The earnings show a small increase, and to the passenger traffic belongs the credit. The decline in the freight traffic is accounted for by a partial failure in the crops, caused by drought. Trade in general was very good throughout the province.

The gross earnings and working expenses for the year compare as follows :—

Gross earnings	$197,999 93
Working expenses	270,159 97
Difference	72,160 04

The gross earnings compare with the previous year as follows :—

In 1901–1902	$ 197,999 93
1900–1901	193,883 48
Increase	$ 4,116 45

The earnings from passenger traffic compare as follows :—

In 1901–1902	$ 85,086 44
1900–1901	78,689 73
Increase	$ 6,396 71

The earnings from freight traffic compare as follows :—

In 1901–1902	$ 95,577 79
1900–1901	97,425 85
Decrease	$ 1,848 06

The earnings from mails and sundries compare as followe :—

In 1901–1902	$ 16,335 70
1900–1901	17,767 90
Decrease	$ 1,432 20

The number of passengers carried compare as follows :—

In 1901–1902	184,748
1900–1901	157,793
Increase	26,955

The weight of freight carried compares as follows :—

	Tons.
In 1901–1902	75,381
1900–1901	73,696
Increase	1,685

WORKING EXPENSES.

The working expenses compare with the previous year as follows :—

In 1901–1902	$ 270,159 97
1900–1901	261,766 24
Difference	$ 8,393 73

The expenditure is large in consequence of the high price of fuel, lumber, iron, ties and other material used in repairs to cars, timber for wharfs and repairs to buildings, and the maintenance of the track.

The average compare with the previous year as follows :—

Per mile run by engines.

In 1901–1902	$ 76 77
1900-1901	76 06

Per mile run by trains.

In 1901–1902	$ 98 65
1900–1901	96 88

Expenditure per mile of railway.

In 1901–1902	$ 1,292 63
1900–1901	1,246 50

TRACK.

There were renewed during the year 58,000 ordinary ties, 30 sets of switch ties, 30 head-blocks with frames, and 1,500 second grade ties were used in yards and sidings.

SIDINGS.

At DeBlois the siding was extended 300 feet.

Alma	"	"	275 "
Elmsdale	"	"	350 "
Coleman	"	"	450 "
Northam	"	"	350 "
Bedford	"	"	192 "
Tracadie	"	"	376 "
Marie	"	"	292 "
Midgell	"	"	200 "
Selkirk	"	"	534 "
Perth	"	"	90 "

Kirkwood a temporary siding of 425 feet was erected,
Elmsdale, Tracadie and Selkirk were made through sidings.

FENCING.

There were 32,776 feet of Page wire erected on new cedar posts, and 3,000 feet of barbed wire. 7,233 feet of snow fence were rebuilt, and repairs were made to fences where necessary. Sixty farm gates were renewed.

BALLASTING.

1,932 cars of ballast were distributed, and 359 cars of clay were used in widening embankments and grading yards.

BRIDGES AND CULVERTS.

Sixteen culverts were rebuilt during the year ; two cast iron pipe culverts put in, and all bridges needing repairs were attended to. Twenty-eight cattle guards were rebuilt. The iron bridge at Morell received two coats of paint.

WHARFS AND BREASTWORKS.

At Summerside a new slip was made for the accommodation of the winter steamer *Stanley*, and very extensive repairs were made to the wharf. In order to provide better facilities for the handling of freight the warehouses were raised and moved further in from the west side of the wharf, making a good roadway round them. In effecting repairs the following material was used : 13 pieces hemlock timber, 1,260 feet spruce plank, 5 pieces birch timber, 200 feet spruce boards, 2 kegs spikes, 13 screw bolts, 19 creosoted piles, 89 hemlock piles, 2 creosoted mooring posts, 7 hemlock mooring posts, 320 lineal feet outside fenders, 500 feet 6″ x 12″ cedar, 12 pieces hard pine 12″ x 12″, 30 feet long, 1,548 lineal feet 12″ x 12″ hemlock, 174 feet 12″ x 12″ hemlock curb timber, 172 hardwood plank, cross ties and stringers 8,898 feet 12″ x 12″ hemlock ; in raising warehouse 11,880 feet 12″ x 12″ hemlock timber ; for covering wharf 17,772 feet 3″ hemlock deal, 22 cars stone, 7 cars poles, 5 cars slabs, 16 cars brush and 22 cars clay.

At Charlottetown the following material was used in making repairs to the wharf : 37 piles 30 feet long, 32 piles 15 feet long, 2,230 cubic feet 12″ by 12″ hemlock timber, 27 cars muck, 12 cars brush, 48 pieces 12″ by 12″ hemlock, 56 pieces 10″ x ″ hemlock and 600 butt bolts.

At Georgetown, 5 piles 37 feet long, 5 pieces 10″ x 12″ hemlock timber, and 35 butt bolts were used in repairing wharf.

BUILDINGS AND PLATFORMS.

Tignish—One side of roof of freight house was reshingled.

St. Louis—Platform, 200 feet long, rebuilt.

Bloomfield—80 feet of platform rebuilt.

West Devon—Platform rebuilt.

McNeill's Mills—Platform rebuilt.

Port Hill—Station platform was rebuilt.

Summerside—The coal shed was raised, the foundation partly renewed, and the building repaired. The engine house was partly reshingled, and new sills put under the building. One new door was put in wharf warehouse, and station platform recovered with 2″ plank.

Traveller's Rest—Platform rebuilt.

Kensington—The agent's dwelling was repainted, papered and thoroughly renovated within, and station platform repaired.

Emerald—Agent's dwelling was repainted and papered throughout, and station platform repaired.

Cape Traverse—Agent's dwelling was repainted and papered. New doors were put on engine house, and the roof repaired.

Albany—A new cattle pen was built, and the station platform repaired.

Bradalbane—Cattle pen was rebuilt and enlarged.

Hunter River—Roof of one side of station was reshingled, and new door put on freight house. The agent's dwelling was thoroughly renovated within, all the rooms being repainted and papered.

Colville—Station and platform were rebuilt.

Milton—Station and platform rebuilt.

Royalty Junction—Platform recovered with 1-in. spruce boards.

Charlottetown—Floor in baggage room relaid, roadway in front of store re-planked, cashier's office sheathed and painted, new doors put on ice house, gates at loading platform renewed, and other necessary repairs made to the buildings.

York—New floor put in waiting room.

Bedford—Platform extended 80 feet,

Tracadie—Station moved to a more suitable location, and platform rebuilt.

Mt. Stewart—Agent's dwelling was re-painted and papered.

St. Peter's—Agent's dwelling was papered, re-painted and thoroughly renovated.

Bear River—Office sheathed and painted, waiting room replastered and repainted, building raised one foot, new sills put under it and partly reshingled, also repainted on outside.

Souris—Roof of warehouse on wharf was reshingled, and new roof put on well house at station.

Peakes—Station platform was rebuilt.

Cardigan—Platform was extended 25 feet, new floor put in waiting room, and cattle pen rebuilt.

Georgetown—New waiting room, 20 by 20 feet, built on end of wharf for the accommodation of passengers by winter boat.

STORES.

The value of stores purchased was	$117,248 56
The value of stores used was	126,478 53
The value of old material sold was	5,316 26

The value of stores on hand at the end of the year was :—

Ordinary stores	$51,071 78
Fuel	7,754 30
Iron and steel rails and fastenings	6,290 48
Old material for sale	1,862 38
	$66,978 94

GENERAL.

The rolling stock, road bed, and buildings have been maintained in a state of efficiency.

I inclose a return of minor casulties which occurred during the year.

I have the honour to be, sir, your obedient servant,

G. A. SHARP, *Superintendent.*

D. POTTINGER, Esq.,
General Manager, Government Railways,
Moncton, N.B.

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE MECHANICAL SUPERINTENDENT,
CHARLOTTETOWN, P.E.I., July 29, 1902.

SIR,—I beg to submit for your information the following statement of the operation of the Mechanical Department for the year ending June 30, 1902:—

The following is a summary of the principal work performed:—

LOCOMOTIVES.

Two new engines were purchased from the Kingston Locomotive Works (Nos. 24 and 25) and charged to capital account.

Six engines received specific repairs, and 9 heavy repairs.

The following work was performed and new parts supplied:—

Two engines had their cylinders bored out, received new fires boxes, pistons, balance valves, slides, crossheads, driving and truck boxes, and cab mountings, and had all wearing parts renewed. Four tenders and 12 injectors were largely rebuilt. Three locomotives received new extension smoke boxes. 2,700 tubes were pieced and put in locomotive boilers. Six pop valves, 6 whistles, 100 sets of steam packing, and 30 new driving and truck springs were made. 186 car axles, 14 sets of truck wheels, and 28 sets of driving wheels were turned. 304 wheels were bored and pressed on axles. 32 sets of new truck boxes were fitted with spring covers. 3,877 lbs. of nuts were tapped. 12,000 bolts were forged and threaded. 89,187 lbs. of iron and 1,037 lbs. of steel were forged. 130 driving and truck springs were repaired. In addition to this a great many running repairs were made which are too numerous to mention.

We have placed in machine shop one new 16-inch shaping machine and a new air compressor, and in connection with the latter have furnished all the shops with 2-inch pipe, and I am happy to say that we have now better facilities for doing work than ever before.

ROAD DEPARTMENT.

Sixteen new frogs, 13 sets of switch gear, and 12 smoke stacks were made.

Fourteen frogs, 3 sets of track scales, 6 sets of small scales, and 8 track ratchets were repaired.

26,116 lbs. of iron and 485 lbs. of steel were forged.

575 lbs. of nuts were tapped.

One bridge was erected and stayed for Wellington.

A great many repairs were made to tools in addition to this which are too numerous to mention.

BRASS FOUNDRY.

Output: 3,877 lbs. of brass castings, 48 battery zincs.

PAINT SHOP.

Five station dwellings, 10 stations, 3 first class cars, 6 second class cars, 31 box cars, 5 stock cars, 22 flat cars, 159 car roofs, 13 freight and baggage trucks, and 10 locomotives were painted.

Eight first-class cars, 4 second class cars, 3 baggage cars, and one locomotive were cleaned and varnished.

264 panes of glass were put in buildings, and 37 sashes glazed for stations.

Freight office and station at Charlottetown were painted inside and out.

For the Murray Harbour Branch 5 tide-boards, 5 level rods and 5 boxes were stained and varnished.

CAR SHOP.

Two second class and baggage cars combined were built, and two first class almost finished, all of which were charged to capital account.

Thirteen platform cars, 2 coal cars, 2 box cars, 2 stock cars, one auxiliary van, and 1 snow-plough were rebuilt.

Four first class, 4 second class and nineteen box cars, and 4 flangers received heavy repairs.

Five first class cars, 6 second class cars, 25 box cars, 20 platform cars, one flanger and two snow-ploughs received light repairs.

ROAD AND TRAFFIC DEPARTMENTS.

Five cattle stages, 35 loading platforms, and 14 switch frames were made and mounted.

Eight gates, 23 boxes, 1 ticket case, 1 large parcel case, 7 coal wagons, 1 office desk, 4 pairs of sashes and frames, 7 doors and door frames, 4 signal ladders and 6 freight trucks were manufactured.

Two freight trucks were repaired.

Three large and 6 small weigh scales were repaired and new foundations put in.

100 barrels of plugs were cut.

Four lorries were made, and other sundry jobs done for the Murray Harbour Branch.

Yours respectfully,

W. S. POOLE,

Mechanical Superintendent.

G. A. SHARP, Esq.,
Superintendent, P.E.I. Railway, Charlottetown, P.E.I.

PRINCE EDWARD ISLAND RAILWAY.

RETURN of Accidents and Casualties which have occurred on the line of the Prince Edward Island Railway during the Year ended June 30, 1902.

Date.	Time of Day.	No. of Train.	Description of Train.	Name of Conductor.	Name of Engine Driver.	No. of Engine.	Place of Accident.	Name of Person Injured.	Whether Passenger or Employee.	Particulars of Accident.	Extent of Injury.	Verdict of Coroner's Jury.
1901.												
July 12	8.50 p.m.	2	Express	G. Lauton	C. McElman	10	Summerside	John L. Weatherbie.	Neither	Struck by train while crossing track.	Fatally injured	Accidental.
Sept. 20		8	Mixed	A. Gillis	H. J. Love	6	Kensington	Isaac Clarke	Employee	Struck by gillpoke	Body injured	
Oct. 7					H. J. Love	21	Charlottetown	J. H. Buxton	"	Knee injured while oiling engines.	Wound in knee cap.	
" 19	6.00 p.m.	21	Mixed	J. McAnslin	D. McEwen	21	North Wiltshire.	D. A. McKay	"	Hand caught while coupling cars.	Two fingers crushed.	
Nov. 5							St. Teresa	I. Kneebone	"	Hip injured by fall	Injury to hip	
" 20							Charlottetown	N. McInnis	"	Hand crushed by pile driver.	Two fingers amputated.	
" 25							Hughes Siding	Jos. White	"	Thrown from hand car	Body and head injured.	
Dec. 3	2.00 p.m.	11	Mixed	D. McKenna	C. McElman	22	Miscouche	A. Stetson	"	Leg injured while handling freight.	Leg injured	
" 4	11.30 a.m.	16	"	J. R. McKee	A. J. McLaine	6	Souris	F. A. McDonald.	"	Ankle sprained while alighting from train.	Ankle sprained	
1902.												
Jan. 7	6.05 p.m.	3	Mixed	D. McKenna	J. Millman	10	Kensington	W. Essory	"	Fell off train	Head injured	
May 15			Shunting		J. Dalziel	13	Charlottetown	John N. McLean.	"	Hand injured while coupling cars.	Hand crushed	
May 22	8.50 p.m.	1	Express	F. Kelly	J. Yeo	8	Summerside	W. Wilson	Neither	Getting on train fell between platform and car.	Foot crushed	

SESSIONAL PAPER No. 20

No. 1.—PRINCE EDWARD ISLAND RAILWAY.

DR. CAPITAL ACCOUNT. CR.

1901.		$ cts.	1901.		$ cts.
June 30.	To cost of road and equipment, to date	4,123,827 21	June 30.	By Dominion of Canada	4,123,827 21
1902.			1902.		
June 30.	To expenditure, year ended June 30, as follows:—		June 30.	" "	475,997 94
	Extension of sidings $ 4,998 06				
	New machinery 5,000 00				
	Steel rails 6,000 00				
	Reducing curves 9,999 88				
	Hillsborough bridge 177,595 53				
	Murray Harbour Branch 272,404 47				
		475,997 94			
		4,599,825 15			4,599,825 15

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1902.

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

DR. REVENUE ACCOUNT for Year ended June 30, 1902. CR.

Previous Year.	Expenditure.	Year ended June 30, 1902.	Previous Year.	Receipts.	Year ended June 30, 1902.
$ cts.		$ cts.	$ cts.		$ cts.
73,813 90	Locomotive power, per Abstract No. 1	76,193 20	78,689 73	Passenger traffic	85,086 44
			97,125 85	Freight traffic	96,577 79
42,836 26	Car expenses, per Abstract No. 2	44,347 99	17,767 90	Mails and sundries	16,335 70
93,213 25	Maintenance of way and works, per Abstract No. 3	99,080 81	193,883 48	Total receipts	197,999 93
36,281 47	Station expenses, per Abstract No. 4	37,920 98	67,882 76	Balance	72,160 04
12,621 36	General charges, per Abstract No. 5	12,616 99			
261,766 24	Totals	270,159 97	261,766 24	Totals	270,159 97

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1902.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

Locomotive Power (Abstract No. 1.)

Previous Year.	Details.	Year ended June 30, 1902.
$ cts.		$ cts.
1,075 29	Mechanical superintendent's salary, clerks, office and travelling expenses...	2,289 31
21,100 38	Wages of drivers, firemen and cleaners	21,646 26
27,913 56	Fuel	29,429 13
2,398 83	Oil, tallow, waste and small stores	1,485 08
18,992 09	Repairs to engines, tenders and engine tools	18,715 63
468 95	Water, including pump and tank repairs	600 54
1,864 80	Miscellaneous	2,027 25
73,813 90	Totals	76,193 20

W. T. HUGGAN,
Accountant and Auditor.

Charlottetown, P.E.I., June 30, 1902.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

Car Expenses (Abstract No. 2.)

Previous Year.	Details.	Year ended June 30, 1902.
$ cts.		$ cts.
7,782 14	Repairs to passenger cars	5,352 53
3,336 27	" postal, express and baggage cars	1,177 85
5,270 46	" freight cars and vans	10,032 40
455 97	" snow ploughs and flangers	1,170 35
21,250 49	Wages of conductors, train baggage masters and brakesmen	21,061 48
688 09	Oil and waste for packing	595 91
2,799 71	Small stores and fuel	3,576 86
1,253 13	Miscellaneous	1,380 61
42,836 26	Totals	44,347 99

W. T. HUGGAN,
Accountant and Auditor.

Charlottetown, P.E.I., June 30, 1902.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

Maintenance of Way and Works (Abstract No. 3).

Previous Year.	Details.	Year ended June 30, 1902.
$ cts.		$ cts.
360 40	Engineer's salary, clerks, office and travelling expenses	321 08
48,626 05	Wages in repairing roadway, fences and semaphores	44,487 62
9,937 26	Rails, chairs and spikes	4,021 55
13,666 46	Ties	24,823 44
2,706 98	Timber and lumber for repairs to bridges, cattle guards, etc.	5,988 36
7,354 74	Repairs to wharves	6,813 06
5,454 66	" buildings and platforms	10,172 30
1,490 83	" tools	1,585 28
6,615 87	Clearing ice and snow	868 12
96,213 25	Totals	99,080 81

W. T. HUGGAN,
Accountant and Auditor.

Charlottetown, P.E.I., June 30, 1902.

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

Station Expenses—(Abstract No. 4).

Previous Year.	Details.	Year ended June 30, 1902.
$ cts.		$ cts.
28,261 62	Salaries and wages of station masters, agents, clerks, telegraph operators, station baggage masters, yardmasters, switchmen, watchmen and labourers	29,104 76
8,019 85	Fuel, oil, light, stationery and other incidental expenses	8,816 22
36,281 47	Totals	37,920 98

W. T. HUGGAN,
Accountant and Auditor.

Charlottetown, P.E.I., June 30, 1902.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL CHARGES.—(Abstract No. 5.)

Previous Year.	Details	Year ended June 30, 1902.
$ cts.		$ cts.
5,893 22	Superintendents' and train dispatchers' salaries, clerk's office and travelling expenses	6,443 63
4,788 01	Accountant and auditors', paymasters' and cashiers' salaries, clerk's office and travelling expenses	4,996 60
651 01	Advertising	294 01
578 05	Damages to men, animals and goods	377 94
446 95	Telegraph expenses (not including pay to operators)	371 74
259 12	Miscellaneous	133 07
12,621 36	Totals	12,616 99

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1902.

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT OF GENERAL STORES ACCOUNT, Year ended June 30, 1902.

1901.	DR.	$ cts.	$ cts.
June 30...	To balance brought forward		73,924 24
1902.			
June 30...	Purchases during the year, including rails	117,248 56	
	Charges from other departments	10,095 61	
	Pay rolls	1,189 04	
			128,533 21
			202,457 45
	CR.		
June 30...	By issues during the year		135,478 51
	Balance — Ordinary stores $ 51,947 78; Fuel 7,754 30; Rails and fastenings on hand 6,824 36; Old material serviceable 452 50		66,978 94

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1902.

No. 9.—PRINCE EDWARD ISLAND RAILWAY.

DR. GENERAL BALANCE. CR.

	$ cts.		$ cts.
General stores	66,978 94	Dominion Account	79,372 18
Cash	2,223 97	John McDougall & Co	878 75
Stations	1,281 20	Rhodes, Curry & Co	631 13
Through ticket ledger	218 92		
Post Office Department	2,536 40		
Militia Department	234 49		
Anglo-American Telegraph Co	46 43		
Judge Weatherbie	30 00		
Sidney Grey	30 00		
Railway Extension, Charlottetown	812 83		
B. & M. Rattenbury	76 20		
Intercolonial Railway	1,367 74		
Accident Insurance	1,366 22		
M. J. Haney	3,683 72		
Totals	80,882 06	Totals	80,882 06

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1901.

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

COMPARATIVE STATEMENT of Averages for Years ended June 30, 1902 and 1901.

Details.	1902.	1901.
Mileage of railway open	209	210
Engine mileage	351,907	344,144
Train mileage	273,832	270,255
Car mileage	1,658,968	1,645,521
Receipts per engine mile.....Cents.	56·26	56·34
" mile of railway.....Dollars.	947 36	923·25
Percentage of passenger earnings to gross receipts	42·97	40·59
" freight " "	48·78	50·25
" other " "	8·25	9·16
Expenses per engine mile:—		
Drivers, firemen and cleaners wages	6·15	6·13
Fuel	8·36	8·11
Oil, tallow, waste and small stores	·42	·70
Repairs to engines	5·32	5·52
Water and tank repairs	·17	·13
Miscellaneous	·58	·54
	21·00	21·13
Mechanical superintendent's salary, office and travelling expenses	·65	·31
Total.....Cents.	21·65	21·44
Locomotive power, per engine mile	21·65	21·44
Car expenses "	12·60	12·45
Maintenance of way and works, per engine mile	28·16	27·96
Station expenses	10·77	10·54
General charges	3·59	3·67
Total per engine mile.....Cents.	76.77	76·06
Locomotive power, per train mile	27·82	27·32
Car expenses	16·19	15·85
Maintenance way and works	36·18	35·60
Station expenses	13·85	13·43
General charges	4·61	4·68
Total per train mile.....Cents.	98·65	96·88
Working expenses, per mile of railway.....Dollars.	1,292.63	1,246.50

W. T. HUGGAN,
Accountant and Auditor.

CHARLOTTETOWN, P.E.I., June 30, 1902.

A.—PRINCE EDWARD ISLAND RAILWAY.

Mechanical Department.

Statement of Cost of Locomotive Power for the Year ended June 30, 1902.

Months.	Miles run by Engines less ballasting.	Cost of								Average per 100 Miles.							
		Mechanical Superintendent's salary, Clerks and Office Expenses.	Engineemen's Wages.	Fuel.	Oil, Waste, &c.	Repairs.	Water.	Engine Houses and Turntables.	Total.	Mechanical Superintendent's salary, &c.	Wages.	Fuel.	Oil, Waste, &c.	Repairs.	Water.	Engine Houses and Turntables.	Total.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1901—July	34,031	93 35	2,035 44	3,262 34	153 69	1,883 13	112 90	89 00	7,629 85	0 27	5 98	9 59	0 45	5 54	0 33	0 26	22 42
August	31,489	187 42	1,847 33	3,011 28	102 32	1,514 67	.....	109 26	6,772 28	0 59	5 87	9 56	0 32	4 81	. .	0 35	21 50
September	29,199	206 58	1,854 42	2,743 52	111 95	1,177 16	112 50	109 69	6,315 82	0 70	6 35	9 39	0 38	4 04	0 39	0 38	21 63
October	32,648	190 97	1,852 55	3,161 84	132 33	1,614 01	.....	172 66	7,124 36	0 58	5 68	9 69	0 40	4 94	.....	0 53	21 82
November	31,700	200 17	1,757 89	3,291 46	133 12	1,816 22	23 98	191 36	7,414 20	0 63	5 54	10 39	0 42	5 73	0 08	0 60	23 79
December	30,625	187 98	1,735 26	3,357 25	157 67	1,826 37	130 40	376 01	7,770 94	0 61	5 67	10 96	0 51	5 97	0 42	1 23	25 37
1902 January	23,356	200 67	1,792 47	2,484 32	113 80	2,016 34	13 22	230 56	6,851 38	0 86	7 67	10 64	0 49	8 64	0 06	0 98	29 34
February	23,485	195 13	1,697 75	2,549 84	128 56	1,532 97	16 08	231 67	6,352 00	0 83	7 23	10 86	0 55	6 53	0 07	0 98	27 05
March	23,921	231 58	1,819 44	2,045 87	125 75	1,571 46	0 82	139 25	5,934 17	0 97	7 60	8 55	0 52	6 56	0 03	0 58	24 81
April	28,740	203 71	1,604 55	1,097 83	101 67	990 52	117 24	157 18	4,272 70	0 71	5 58	3 82	0 35	3 45	0 41	0 55	14 87
May	32,644	192 82	1,978 01	1,155 60	125 53	1,517 64	8 30	83 91	5,061 81	0 59	6 06	3 54	0 38	4 65	0 03	0 25	15 50
June	30,069	198 93	1,671 15	1,267 98	98 69	1,255 14	65 10	136 70	4,693 69	0 66	5 56	4 22	0 33	4 17	0 21	0 45	15 60
Totals	351,907	2,289 31	21,646 26	29,429 13	1,485 08	18,715 63	600 54	2,027 25	76,193 20	0 65	6 15	8 36	0 42	5 32	0 17	0 58	21 65

S. F. HODGSON,
Mechanical Accountant.

PRINCE EDWARD

MECHANICAL

STATEMENT of the Performance and Consumption

Months.	Hours in steam.	Train Mileage.				Mileage by Engines.			
		Passenger.	Freight and Mixed.	Ballasting.	Piloting.	With Train.	Light.	Shunting.	Total.
1901—July	4,208	12,941	14,399	2,337	168	29,845	192	6,785	36,822
August	4,018	11,683	14,337	5,182	48	31,250	62	5,874	37,186
September	3,859	9,736	13,665	3,945	.....	27,346	298	6,095	33,739
October	3,667	10,437	16,000	414	.....	26,851	.....	6,361	33,212
November	3,573	7,340	17,866	.....	.....	25,206	59	6,435	31,700
December	3,515	10,115	14,497	.....	.....	24,612	.....	6,013	30,625
1902—January	3,026	3,598	12,959	.....	.....	16,557	49	6,750	23,356
February	3,029	3,714	13,060	.....	270	17,044	199	6,242	23,485
March	3,140	3,509	13,613	.....	.....	17,122	249	6,550	23,921
April	3,390	7,016	14,573	.....	64	21,653	.....	7,087	28,740
May	3,929	10,576	14,573	2,088	44	27,281	236	7,470	34,987
June	3,511	10,012	13,019	1,699	.....	24,730	142	7,236	32,108
Totals	42,865	100,677	172,561	15,665	594	289,497	1,486	78,898	369,881

SESSIONAL PAPER No. 20

ISLAND RAILWAY.

DEPARTMENT.

of Locomotives for the Year ended June 30, 1902.

Total Mileage.		Average of Cars per Mile run with Train.	Average Mileage.		Consumption.				Consumption per 100 miles run by Engines.			
ars.	Snow Ploughs.		Miles to one hour in steam.	Of cars to one of engines.	Tons of Coal.	Pints of Oil	Pints of Valve Oil.	Pounds of Waste.	Pounds of Coal.	Pints of Oil.	Pints of Valve Oil.	Pounds of Waste.
187,914	.....	6·33	8·75	5 10	635	1,534	454	629	3,048	4·16	1·23	1·70
200,159	.....	6·41	9·25	5·38	647	1,561	388	602	3,897	4·19	1·04	1·61
174,283	.....	6·37	8·74	5·17	578	1,544	428	618	3,837	4 58	1·26	1·83
165,801	.....	6·18	9·05	4·99	612	1,400	292	546	4,128	4·21	0 88	1·64
153,289	.....	6·08	8 87	4·83	619	1,308	326	500	4.374	4·12	1·03	1·57
134,058	189	5·45	8·71	4·38	621	1,268	368	538	4,542	4·14	1·20	1·75
100,338	.....	6·06	7·71	4·30	460	1,068	189	420	4,412	4·57	0·77	1·80
115,271	1,448	6·76	7·75	4·90	450	1,071	264	468	4,292	4·56	1·12	1·99
110,355	599	6·44	7·62	4·61	420	1,088	228	503	3,933	4·55	0·95	2·10
137,875	.....	6·39	8·49	4·80	370	1,202	292	493	2,883	4·18	1·01	1·71
162,157	.....	5·95	8·90	4·63	500	1,256	300	485	3,201	3·59	0·86	1·38
146,993	.....	5·94	9·15	4·58	380	1,349	384	523	2,651	4·20	1·19	1·62
1,788,493	2,236	6·19	8·63	4·84	6,292	15,649	3,904	6,325	3,810	4·25	1·05	1·71

S. F. HODGSON,
Mechanical Accountant.

C.—PRINCE EDWARD ISLAND RAILWAY.

Mechanical Department.

Monthly Statement of Car Mileage for Year ended June 30, 1902.

Months.	First Class.	Second Class & Baggage.	Postal and Smoking	Box and Stock.	Platform.	Total.
1901—July	44,209	27,015	30,113	59,175	27,402	187,914
August	33,482	26,366	31,904	51,988	56,419	200,159
September	28,750	23,672	28,875	52,561	40,425	174,283
October	30,150	25,336	26,969	68,479	14,867	165,801
November	25,009	23,095	26,582	65,300	13,303	153,289
December	26,446	24,087	25,683	52,972	4,870	134,058
1902—January	16,967	16,067	16,896	37,914	12,494	100,338
February	16,817	14,200	17,158	40,092	27,004	115,271
March	18,586	13,503	18,004	39,783	20,474	110,355
April	22,835	18,112	23,348	62,266	11,314	137,875
May	26,552	18,692	30,273	67,174	19,466	162,157
June	25,557	18,152	26,439	52,447	24,398	146,993
Totals	315,360	248,297	302,244	650,156	272,436	1,788,493
Less ballasting			16,127	14,541	98,857	129,525
Balance	315,360	248,297	286,117	635,615	173,579	1,658,968

S. F. HODGSON,
Mechanical Accountant.

D.—PRINCE EDWARD ISLAND RAILWAY.

Mechanical Department.

Statement showing the number of Locomotives and of the various classes of Cars and other Rolling Stock on June 30, 1902.

	Locomotives.	Classification of Cars.																	
		1st Class.	2nd Class.	Combined 2nd and Baggage.	Postal and Smoking.	Combined Postal and Baggage.	Baggage.	Pay Car.	Vans.	Box Freight.	Refrigerator Car.	Stock.	Coal.	Platform.	Total.	Snow Ploughs.	Flangers.	Total.
On hand, serviceable, June 30, 1901	23	19	8	4	2	3	4	1	3	203	1	17	18	144	427	8	7	15
Condemned, July 1, 1901	....	..	.	....	....	...	..	..	..	...	....	.	..	3	3	..	..	....
Total	23	19	8	4	2	3	4	1	3	203	1	17	18	147	430	8	7	15
Purchased during the year on capital account	2	..	..	....	...	...	..	..	.	...	....	..	..	...	....	..	..	....
Built during year on capital account	....	2	..	2	....	....	..	..	..	....	....	..	..	...	4	..	..	....
Total	25	21	8	6	2	3	4	1	3	203	1	17	18	147	434	8	7	15
Condemned, July 1, 1901	...	..	..	....	.	..	..	..	..	....	..	..	.	3	3	..	..	...
" during the year	....	..	..	....	....	....	1	..	2	2	....	2	2	10	19	1	..	1
Total condemned	...	..	..	..	....	....	1	..	2	2	...	2	2	13	22	1	..	1
Less rebuilt	....	..	..	...	....	....	..	..	1	2	....	2	2	13	20	1	..	1
To be rebuilt	....	..	..	....	....	....	1	..	1	...	....	..	..	...	2	..	..	....
Add serviceable and repairing	25	21	8	6	2	3	3	1	2	203	1	17	18	147	432	8	7	15
Total	25	21	8	6	2	3	4	1	3	203	1	17	18	147	434	8	7	15

S. F. HODGSON,
Mechanical Accountant.

E.—PRINCE EDWARD ISLAND RAILWAY.

Mechanical Department.

Comparative Statement of the Expenses of the Mechanical Department for the Years ended June 30, 1901 and 1902.

	1901.	1902.
The miles run by trains were	270,225	273,832
" engines were	344,144	351,907
" cars were	1,645,521	1,658,968
" snow ploughs were	12,575	2,236
	$ cts.	$ cts.
The cost of locomotive power was	73,813 90	76,193 20
" repairs to cars was	16,388 87	16,562 78
" " passenger cars was	7,782 14	5,352 53
" " postal and smoking cars was	3,336 27	1,177 85
" " freight cars and vans was	5,270 46	10,032 40
" labour, oils, and waste for cars was	688 09	595 91
" repairs to snow ploughs and flangers was	455 97	1,170 35
The cost of locomotive power per 100 miles run by trains was	27 31	27 82
" " " engines was	21 45	21 65
" " " cars was	4 45	4 59
The cost of repairs to cars per 100 miles run by trains was	6 06	6 04
" " " engines was	4 76	4 70
" " " cars was	0 99	0 99
The cost of labour, oil and waste for packing per 100 miles run by trains was	0 25	0 22
" " " engines was	0 19	0 17
" " " cars was	0 04	0 03
The repairs to passenger cars per 100 miles run by trains were	2 88	1 95
" postal and smoking cars were	1 23	0 43
" freight cars and vans were	1 95	3 66

S. F. HODGSON,
Mechanical Accountant.

SESSIONAL PAPER No. 20

No. 2

CANALS

SAULT STE. MARIE CANAL.

SUPERINTENDENT'S OFFICE, August 14, 1902.

DEAR SIR,—I beg herewith to submit my seventh annual report on the operation of this canal for the fiscal year ending June 30, 1902.

The canal was closed for traffic last season on December 21, having been in operation for 246 days and was opened for business on April 1, this present season.

During the fiscal year just ended there has been made 3,257 lockages passing through 4,343 registered craft and 477 unregistered vessels with a total tonnage of 3,078,440 tons with an average time of 15·25 minutes to each lockage. Of this tonnage 1,010,887 tons was of Canadian bottoms, being an increase of 421,357 tons over last year's tonnage of this class. In the total tonnage for the year there was an increase of 589,182 tons. The increase can be attributed no doubt to the accident to the swing bridge crossing the American Canal by reason of which the American canal was closed for traffic for five days (June 7-12) and the whole of the Lake Superior traffic had to be carried through this canal, taxing it to more than its capacity. During this rush of traffic, although we only had half the width of the lower channel to operate in owing to the dredging going on there, still we did not have any accidents or groundings as in former rushes of this kind. We are very much indebted to the assistance of the American canal officials and also of their revenue cutter service in keeping the vessels in their proper places during the blockade as we did not have sufficient piers to hold the boats waiting their turn for lockage, and had to hold them out in the river at both ends and have them sent in the canal in their proper turn.

At the present time of writing the dredging in the lower entrance is completed and the work taken from off the contractor's hands and we now have a draught of 21 feet 6 inches of water, so vessel captains will not have the excuse of shallow water for not using the canal as in former years, and it remains to be seen whether the spending of so many thousand dollars by the Government on this approach is appreciated by the vessel men or not.

The machinery has been thoroughly gone over and repaired and is in good working order, and there has been no breakages.

The buildings have been all painted and the swing dam is now being done.

Last September the new lower main gates were put in by Messrs. J. & R. Miller, necessitating the closing of the canal whilst so doing. Owing to the gate pontoon breaking down this closing down was of a longer period than we expected.

During the winter we have built a new and better gate pontoon capable of lifting at least 150 tons. So far the new gates have been working all right and giving good satisfaction.

Very little damage has been done to the walls and piers by vessels using the canal.

The east half of the lower north pier has been replanked and it will be necessary next year to nearly replank the whole of the remaining piers.

The daily exchange of vessel reports with American canal officials is still carried on, thus keeping intact the whole volume of the Lake Superior traffic as in former years. In my last report I spoke of the large traffic passing through the two canals at this point as being a record breaker, but when one comes to see the report of the traffic for the season of 1901, it is indeed a record breaker as there was nearly three million tons more freight carried than in 1900, and from present indications this present season there will be a record far above the thirty million ton mark.

The following table gives the traffic passed through the canal at this point since the opening of the first canal in 1855 on the American side and the Canadian canal in 1895. It may be of interest to some of its readers.

Year.	Number of Vessels passed.	Registered Tonnage of Vessels.	Total freight Tonnage.	Cost of carrying per Mile. Tons.	Estimated Value of Freight carried.	Percentage of Freight carriad in Canadian Canals.	Number of Passengers.
				Mills.			
1855	No record.	106,296	No record		No record		4,270
1860	"	403,657	until 1881.		kept until		No record.
1865	997	409,962	"		1887.		19,720
1870	1,828	690,826	"		"		17,153
1875	2,023	1,259,534	"		"		19,685
1880	3,503	1,734,890	"		"		25,766
1885	5,380	3,035,987	3,256,628		"		36,147
1890	10,557	8,454,435	9,041,213	1·3	102,214,948	3·5	24,856
1895	17,956	16,806,781	15,062,580	1·14	159,575,129	3·75	31,656
1897	17,171	17,619,933	18,982,755	·83	218,235,927	3	40,213
1898	17,761	18,622,754	21,234,634	·79	233,069,739	2·2	43,426
1899	20,255	21,958,347	25,255,810	1·5	281,364,750	3·1	49,082
1900	19,452	22,315,834	25,643,073	1·18	267,041,959	3	58,555
1901	20,041	24,626,976	28,403,065	·99	289,906,865	4	59,663

The south pier at the lower end should be extended out some 800 feet to give more length of pier for vesssels to tie up to after locking down while waiting for daylight to go on down the river.

The extension out for about 800 feet of the south pier at the upper end would in a great measure cut off the danger of vessels drifting down on to the bank owing to the strong cross current at that point, numerous cases of which has happened previously to this time, the last one only a couple of days ago.

A small frame building should be built for the use of the lockmen as the room now used by them in the power-house is too small and besides it is necessary for the use of the electricians.

The efficiency of the staff has been maintained.

The present plank walks in use along the lock walls will required to be replaced next year and when done they should be rebuilt of cement, which would add greatly to the appearance of the grounds.

Now that the deepening of the lower channel has been completed the necessary soundings should be taken for the widening of the upper channel, and also the deepening of the same if that is to be done. This should be done the coming winter as that is the only time it can be done with any degree of certainty.

The levelling of the grounds on the north side of the lock would add greatly to the appearance of the grounds. Trees have been planted wherever the ground would admit of its being done, in advance of this levelling. A small sum set aside each year for this purpose would soon accomplish the desired end, and give our grounds a very much improved look.

I have the honour to be, sir,
Your obedient servant,

J. C. BOYD,
Superintendent.

Collingwood Schreiber, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals, Ottawa.

ENGINEER'S OFFICE, SAULT STE. MARIE, ONT., August 14, 1902.

SIR,—I beg leave to submit the following report upon the improvement work to the channel ways at the Lower and Upper approach to the Sault Ste. Marie Canal.

DREDGING LOWER ENTRANCE.

A contract was let on May 13, 1901, to Mr. A. F. Bowman for dredging and excavating in the channel way at the lower entrance. Work was started on this contract May 20, 1901.

The work consisted (firstly) in the deepening of the channel way from 18 feet 6 inches below what was known as lowest recorded water level at time of construction of the lock, to the depth of 21 feet 5 inches below the same level, or one foot below the level of the mitre sill of the lower main gates, (secondly) in widening the channel way at the bend below the entrance piers, in order to provide more space for turning upon entering or leaving the lock, (thirdly) to provide a berth for a proposed extension of 800 ft. to the south entrance pier.

The progress of the work was as follows: During the summer of 1901 the north half of the channel way was worked over while the south half was reserved for navigation. Night lights were provided at the contractor's expense to protect navigation during the progress of the work. It was during this period of the work through an accident, which resulted in the closing of the large Poe lock of the American canal, the channel way was found not of sufficient depth to pass all the boats safely through, and the pier accommodation quite inadequate to meet the demand for much less traffic. By September 21 the north half of the channel way had been dredged over, but as small banks between dredge cuts and boulders and stone in places had not been removed a depth of 19 feet 6 inches was all that could be assured, and was accepted for the channel way for traffic, until the south half should be worked and cleaned up to the required depth as per contract. This was done in order to provide a safe channel way at the earliest possible time, as much injury had been done to the patronage of the canal through the unsafe condition of the half in use at the time. The channel ranges were moved over 35 feet to the north to provide an entrance to the north half of the channel way. On the south half dredging was performed for the remainder of the season, which came to a close on December 7. Owing to the exceptionally early breaking up of the ice, work was resumed on March 25. The contractor's drill scow was placed in position, and a large area of solid rock that had been stripped and made ready was drilled and blasted for dredging. On April 4 the dredge resumed work on the south half of the channel, and a night and day crew were employed up to the completion of the work. The derrick scow, with diver, removed stone left after dredging until the required depth of 21 feet 5 inches was secured over the south half of the channel way. The channel ranges were again established on the regular centre line of channel on June 24, 1902. The remaining work of cleaning up the north half of the channel way was proceeded with, and brought to a completion July 31, 1902. The final sweeping was started on August 1, and a careful examination throughout the whole contract was made. Small obstructions were found in places, and immediately removed by the contractor until the depth of 21 feet 5 inches below mean level, or one foot below the mitre sill of the lower main gates, was procured.

In reference to low water level, as established at the time of the construction of the lock from records kept since then, the low level has reached 1.52 below this mark.

IMPROVEMENTS AT LOWER ENTRANCE.

On the completion of the deepening and widening of the channel way at the lower entrance, I beg leave to state that a channel way of 315 has been secured with additional width at the bend or turning-point of entrance to the tangent to the lock. This channel-way might be increased at a small cost by the removal of boulders and large

stones which are found with 19 feet of water over them just outside the approved channel line and beyond the turning buoy located 1,200 feet from the end of the south pier. At present it is considered that after this buoy is passed vessels may take any course in river towards the American channel, and be perfectly safe. A proper examination of this should be made to ascertain as a certainty what water then is outside of the channel limit, and if found wanting in safety, buoys marking the channel way to the juncture with the American channel ranges should be placed out, or the obstruction removed.

The widening of the channel way on the south side from the end of the proposed south pier extension by a line parallel with the centre range, and also with the north channel limit would greatly diminish risks in navigation, and could be done with a small outlay.

SOUNDINGS AND PROPOSED WORK AT UPPER ENTRANCE

During parts of winter season of 1900 and 1901 an examination of the channel way at the upper entrance of the Sault Ste. Marie Canal was made by sounding. A plan or scale of 200 feet to an inch was made, which shows both approaches. At the upper entrance a projected location for an improved channel way was laid down, and an estimate made for both the widening and deepening to carry out this work. An extension to the south entrance pier of 800 feet was also shown. The want of the additional width in the channel way has much been felt during the last few years, when passages had to be made between the large freighter with consorts entering and leaving the locks. The requirement of additional pier accommodation has also been forcibly brought before my notice, as well as the protection it will provide in keeping vessels from being driven on the bank by the heavy cross current found at the upper approach.

Detailed plans are now being prepared for proposed pier extension, both at upper and lower approach, and a plan showing proposed widening at upper entrance.

Soundings will be required at upper entrance in connection with proposed widening for quantities, and can be procured with much more accuracy and despatch on ice during the winter season.

I have the honour to be, sir,
Your obedient servant,

F. B. FRIPP,
Engineer in charge.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Ottawa, Ontario.

SOULANGES CANAL.

COTEAU LANDING, September 1, 1902.

SIR,—The navigation season of 1902 was opened here on May 1 with the electrical apparatus in full use both for light and power. No breakdown whatever has occurred to date: and it is believed that, after patient and prolonged study and experiment, this machinery has been so simplified that its operation will be attended with the minimum of risk of accident, while vessels are now passed through the canal both by day and night safely and expeditiously. There are only two men at a lock,—one on each side; and the observed results have verified the calculations made as to the time of filling the chamber, opening the gates, sluices, &c., &c. A steamer of ordinary size is passed through one of the 23½ feet lift locks in about ten minutes; and the whole length of the canal (14 miles) and its five locks were easily traversed this season by the *Columbian* in two hours and twenty minutes.

All the works embraced in the contracts sections No. 1 to 13 are completed; and only two final estimates (sections 1 and 2 and sections 4, 5, 6 and 7) have not yet been sent in. These will, however, be ready in a few days. A number of claims for alleged extra and additional work have been presented. These amount, in the aggregate, to a very large sum, and will doubtless entail considerable labour and trouble before they can be disposed of finally.

The protection dock at Cascades Point is finished; and a channel is being dredged to it so that it will be easy of access at periods of lowest water in the Ottawa River. A storehouse will be required here—plans for which will be prepared shortly. The work of extending the pipe culvert under the canal at Bissonnette Gully is also completed; and the high banks there, which are partly of blue clay, are sodded, drained, and thoroughly secured. The protection lining of section No. 3, which required extensive overhauling, will be completed this month. In brief, all the works essential to the safe and efficient operation of the canal are now completed. The trees planted during the past two seasons have grown considerably—and will in time form wind breaks in exposed positions—and the drainage throughout has been well attended to, so that but little damage is done by rainstorms. The stone road on the north bank from Coteau Landing to Cascades Point is now in excellent condition throughout.

It may be of service, to place on record here a short technical description of the electrical apparatus as finally adopted for practical use on this canal. It is of course evident that this system cannot be applied to canals like the Welland, without such extensive and radical alterations on the masonry of the locks as would render this course inadvisable. The Soulanges Canal was arranged from the outset for the reception of machinery on the general lines of that now in use. The following description is taken principally from a paper prepared by the Canadian General Electric Co., who did all the electrical work connected with the lighting and power throughout.

The application of alternating current apparatus to work of this class being a novelty, many interesting engineering problems were encountered and successfully solved.

As stated in previous reports the hydraulic equipment at the power house consists of two wheel pits, in each of which are installed two pair of 24 inch Victor turbines on one horizontal shaft operating under a head of about 20 feet, at 225 r.p.m.: and discharging into Graisse River, which is used as a tailrace. Each set of wheels is furnished with a Geisler governor. To each of these two water-wheel units, is coupled a three phase revolving field 60 cycle generator of 264 kilowatts (360 h.p.) capacity at 2,400 volts, each generator being set on a heavy concrete foundation capped by large dressed stone. Two four pole exciters are also furnished, each of 17 kilowatt capacity at 125 volts being sufficient to excite the fields of both generators. These are driven by belts from the main water wheel-shafts.

The switchboard is of blue Vermont marble, the end being guarded by a brass grille work which also extends around the top. It comprises five panels 90 inchs high, and has a total width of 12 feet. Two generator panels each furnished with a three-pole main switch of the old break type ; three ampere meters and one volt meter, all of the Thomson inclined coil type :—three expulsion fuse blocks, one volt meter and synchronizing plug switches—two pilot lamps, field rh ostat and switch. One exciter panel furnished with two main exciter switches, two ampere meters, one volt meter switch, two field rheostats and two pilot lamps : two feeder panels each furnished with two three-pole quick break switches, one for power and one for arc lights—two ammeters—six explosion fuse blocks, and two electrostatic ground detectors.

The wiring is such as to admit of any circuit being connected to either or both machines. The cables between switchboards and machines are carried in conduit, which is covered by iron checker plate.

The lighting of the power house is effected by means of 16 c.p. incandescent lamps set very closely togother just below steel beams which carry the travelling crane, each lamp being set at an angle of 45° with the horizontal and provided with a neat reflector. The wiring is concealed in moulding, and switches are provided to turn on the light in sections. A hand-operated travelling crane is provided of sufficient capacity to easily handle the heaviest parts of the generators. A novel feature of the generator room is the marble mosaic floor, also the substantial brass railing forming a passage-way down one side of the room.

The switchboard is connected to the transmission lines by means of highly insulated lead encased cables which pass under the canal and terminate at fuse blocks placed in a neat and substantial terminal house in which are also located the lighting arresters protecting the cables from lightning discharges. From this terminal house (situated on the north bank of the canal) four three-phase circuits emerge. The circuit to the upper entrance at Coteau Landing (5 miles) consists of No. 6 B&S—the arc-lighting circuit being of the same size. The power circuit to the lower entrance at Cascades Point (9 miles) consists of No. 4 B&S, and the arc-lighting circuit No. 2 B&S : all bare copper wires. These transmission lines are carried on red cedar poles perfectly straight and dressed to an octagonal shape. They were brought from British Columbia, it having been found impossible to obtain satisfactory timber nearer. All poles are set 6 feet in the ground, and 120 feet apart : every fourth pole supporting an inclosed arc lamp. The lamp poles are 35 feet long and the others 30 feet ; and all are painted four coats white lead. The poles are all set with an instrument to both line and level, and therefore present a perfectly uniform appearance throughout. All six pin cross arms are strengthened by ornamental iron braces, and the brackets for supporting the lamp arms are of similar design. The lamps are of the multiple inclosed arc type : the capacity is 7½ amperes (2,000 c.p.), all being furnished with clear outer and inner globes. The lamp cases are weather-proof and are furnished with an enamelled metal reflector. These lamps are each provided with thousand watt type H oil cooled transformer. This extra capacity is provided to ensure a large factor of safety, which precaution is carried out through the whole installation. Crossing the canal are five electrically oper-

ated road bridges. Four of these are on the summit level and one on the reach between locks 3 and 4. The motors and controlling apparatus for these are contained in a cabin situated on the down-stream side of each bridge. The motors are of two h.p. operating at 220 volts and are geared to the turning mechanism. Between the electrical and bridge gearing a flexible friction is interposed which is operated by a lever, and acts either as a clutch or brake as occasion requires. The bridges (240 feet long) each weigh upwards of 100 tons and are opened or closed in about 1½ minutes. On top of each bridge a red lantern is placed exactly on the centre line of the canal, showing both ways as a danger signal when the bridge is closed. This lantern is lighted by a cluster of incandescent lamps. Power is conveyed to the pivot pier of each bridge by means of submarine cables from a transformer placed in one of the adjacent line poles.

The lock chambers have an effective length of 270 feet, with a width of about 46 feet. The gates are of Douglas fir from British Columbia, and are built on what is called the 'solid' plan. The lower gates of locks 1, 2 and 3 are 42 feet high and weigh over 70 tons. These are closed and opened by a steel I beam with a rack secured to it which is operated by a pinion. There are recesses or tunnels formed in the masonry to receive these beams when the gates are opened. The lock gates and stony sluices are operated by three-phase 220 volt constant speed induction motors in the following manner :—

The lock gate motors are of 3 h. p. capacity, and are connected to the pinion which operates the rack by a pair of gears. At one point, however, is interposed a friction device which is so arranged that by operating a lever two wide friction pulleys can be brought into contact, thus applying the power to move the gate ; and by reversing this lever a powerful brake is applied, which is used either to stop the motion of the gate or control its movements when nearing the mitre sill or approaching the back of the masonry recess. This brake also serves to hold the gate in position at all times. The mechanism connected with the motor is housed in a cast iron box fitted with a rain-proof cover. The top of this box stands about 15 inches over the top of the lock coping. The motor boxes are placed so as not to interfere with the ship's lines or the free navigation of the lock. The lever which operates the friction is attached to a shaft which projects through the wall of the box, as does also another smaller lever which operates a reversing switch used to change the direction of rotation of motor. The power required to start the motor is very slight : the only friction at starting being that of a small pinion and gear and four bearings. The motor can be reversed in a very few seconds. This feature is of much importance as it enables the motion of the gates to be changed very quickly in case of emergency. In order that the motormen may be able to tell the position of the sluice gates an indicating device is arranged inside the box by which an index hand outside shows when the gates arrive at the end of its travel in either direction. The mechanism is so arranged that the lock gates can be opened or closed in one minute.

The sluice gates are operated on precisely the same principle as the lock gates, but the rate of travel is so arranged that they can be fully opened or shut in forty-five seconds.

The transformers which supply current to the lock motors are contained in a switch cabin of suitable size and design. These transformers, of which there are two, are of 7,500 watts capacity, thus allowing ample margin for overloads on the motors. The switch houses also contain a fuse cabinet which holds a fuse block for each motor and each lighting circuit. Above the fuse cabinet is arranged an enclosed switch with a projecting handle to operate the same. By means of this switch current can be cut off from the entire lock. As these switch houses are used by the motormen, everything is arranged with a view to the greatest possible safety ; and therefore all metal carrying current is inclosed in a substantial and effective manner. The cabins are lighted inside by 16 c.p. incandescent lights, and outside on the face towards the lock are six 32 c.p. incandescent lamps in marine weather-proof fixtures. The lock motors are connected to the fuse block in the above mentioned fuse cabinet by means of highly insulated lead cables, which enter the cast iron motor boxes through brass stuffing boxes. The general

lighting of the canal makes it as easily navigable by night as by day. Both entrances and all locks are lighted from both sides of the canal.

The electrical apparatus is very effectively protected against lightning arresters of the short-gap type being installed at each lock and at every point where cables pass under the canal for lighting power or telephone services. All the locks, &c., are connected by a telephone system which has proved very effective during the navigation season.

Electrical heaters are placed in all switches and bridge cabins. These are 750 watts capacity each. This heating system is also adapted in the power house, in which a 750 watt heater is installed in each of the living rooms and 4,000 watt heaters in the store room. The heaters are of the Simplex Electrical Company's manufacture.

The cost of running the electrical apparatus, including power house men, lamp trimmers, linemen, superintendent, repairs, new material, &c., is now about $5,000 per annum. In this connection it should not be forgotten that night lighting almost doubles the carrying capacity of the canal—a great point in our short navigation season, while the precision of movement rendered possible by the use of machines will largely diminish the chances of accident in stormy weather or during a time of numerous lockages.

The business of this canal to date is much less than last year. The chief cause of this diminished tonnage is the great coal strike now on in the United States, May to August, 1901, (both months inclusive) there passed here about 221,000 tons of coal. During the same period of 1902, this tonnage was only 70,000, a falling off, in this item alone, of about 150,000 tons. The grain traffic has not, however, diminished to any great extent—the comparison May–August of 1901 and 1902, being as 323,543 tons to 306,238 tons grain of all kinds, while it is quite probable that during the next three months the volume will increase so much as to render 1902 a record grain season. It is of course too late now to recover the loss in coal tonnage in 1902. Indications of the ultimate success of the St. Lawrence route are slowly appearing. This line of transportation is in a transition state. The canals are complete to fourteen feet draught between Lake Erie and tide water, but there are no vessels in existence to take full advantage of their carrying capacity, while the most strenuous efforts are being made on behalf of the railways to retain the trade. It is, however, inevitable the bulk of the enormous grain crops of our own territories of Manitoba and the North-west which are increasing at a marvellous rate, shall eventually follow the national and natural route to Montreal instead of as heretofore being diverted to southern lines. Corroborative of this view, I may state that there are at present ten steel freight steamers of full Canadian canal size under contract for delivery in 1903 at various points on the upper lakes. These are to be 255 feet in length over all, 241 feet keel, 41 feet beam, and 18 feet in depth with triple expansion engines. They are to cost $150,000 each, and it is reckoned they will carry 2,200 tons on 14 feet draught. This will form an efficient nucleus for the Canadian grain fleet of the future. At 25 round trips, Port Colborne to Montreal, and assuming one-third return freight, they will move at least 750,000 tons in an ordinary season. Preparations for an increased volume of trade are also being made in other directions; the chief impediments now experienced being want of despatch at Montreal and the dangers to navigation between that port and the open sea, all of which will, it is to be hoped, disappear when the works of improvement now about being undertaken shall have been completed.

OPERATION.

The Soulanges canal was closed by ice on the 28th last November, and this formed so suddenly that nine tugs and barges were frozen in near the lower or Cascades Point end. Some of these were however released, but a few had to remain during the winter, without suffering much damage. The cross sectional area of the summit is large and the current so slow that the canal freezes sooner than if there were a current of say a mile per hour which would probably follow the establishment of manufactories requiring considerable power, and for which a lease has been granted. I may say here that during

the past three seasons the water level of Lake St. Francis has been remarkably uniform, varying only a few inches from the plane of 155 above datum.

The supplementary contract entered into with the Canadian General Electric Co., on April 23, 1901, which was for the complete installation of the electric plant, as modified, expired on October 1 of last year. The period of this was extended to the date of opening the navigation in 1902, but so many vexatious delays occurred, that it seemed doubtful if even this extension would secure the completion of the work in time. This was however at last accomplished, with the results set forth at the beginning of this report. The machines are so simple that a fairly efficient staff to operate them was obtained by selection from the employees of last year. The force was reduced from 76 to 42; the money saved to the close of the fiscal year 1901-2, being at the rate of almost $9,000 per annum.

The earthworks, structures, &c., stand well, and it is now fairly certain that the canal slopes are consolidated under the new conditions and no extensive slides will again occur.

I am, sir, your obedient servant,

THOMAS MONRO, M. Inst. C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

QUEBEC CANALS.

OFFICE OF THE SUPERINTENDING ENGINEER,
MONTREAL, September, 1902.

C. SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer, Railways and Canals,
Ottawa.

SIR,—I have the honour herewith to submit my annual report on the works under my charge for the fiscal year ended June 30, 1902.

The canals in this division are the Lachine and the Beauharnois on the St. Lawrence route; the Ste. Anne, the Carillon and the Grenville canals, on the Ottawa river, and the St. Ours lock and the Chambly canal on the Richelieu river.

Of these, the Lachine canal is by far the most important, on account of its immediate connection with the harbour of Montreal, the great export centre of the Dominion.

The traffic through it has rapidly increased of late years, owing to the development of industries and agriculture in western Canada and the Canadian North-west, and it will certainly take a still greater importance with the completion of the deepened canals, especially when adequate facilities for handling freight and grain shall have been provided for.

The Ottawa canals afford a most convenient route for the transportation of the produce of the extensive forests of the Ottawa valley, a large proportion of which finds its way to the United States through the Richelieu river canals.

In view of repeated inquiries as to the largest vessels which can be passed through the locks of the canals of this division, I have thought it advisable to supplement the present report with sketches giving information on this point. See page 34.

LACHINE CANAL.

Length, 8½ miles; 5 locks, 270 by 45 feet; 14 feet water on sills; total rise, 45 feet.

Old locks, 200 by 45 feet; still available with 9 feet of water on the sills.

Navigation on this canal was uninterrupted during the year. A serious accident however occurred on June 3 last, when the steamer *Ocean* going westward collided with the upper gates of the old lock No. 1. Both pairs of gates were thrown down and more or less injured. While repairs were being made all boats had to use the new locks.

A day or two after repairs had been completed a leak which had existed for a long time increased in a threatening manner. The canal diver was at once sent down, and after a thorough examination reported that both the sill and the walls above and below it were seriously undermined. The damage was found to be so serious that the lock was closed to navigation. It will not be reopened. Tenders for the rebuilding of both old locks 1 and 2 will shortly be invited. In the meantime the old basin between them, still accessible through old lock 1 is being used by freight boats, the R. O. Navigation Co.'s vessels which were formerly berthed here being given the use of one of the small basins near Colborne street.

REPAIRS AND RENEWALS.

The water was drawn out of the canal on April 1 and readmitted into it on May 1, 1902.

The most important repairs executed here during the fiscal year were as follows :—

Three pairs of gates, one each for new locks Nos. 2, 3 and 5 were taken apart, rebuilt and provided with butterfly valves in place of Townsend valves.

The upper mitre sill of old lock No. 3 (St. Gabriel) which had been raised about 4 inches by the force of the water, was replaced in position and safely anchored.

Some serious scouring had taken place at the foot of lock No. 4 (Cote St. Paul). The hole thus formed was completely filled with stone. However, more permanent repairs will have to be done shortly at this point by the extending of the platform.

A piece of masonry on the south side of basin No. 2 at the foot of Colborne street, which was in an advanced state of decay, was removed during April and replaced by a block of concrete, 30 feet long, 5 feet high and about 4 feet thick, faced with steel plate.

The breastwall and the eastern buttress of waste weir No. 2 had been lately showing signs of weakening. Upon removing the planking below the breastwall in April last it was found that extensive scouring had taken place on a length of over 40 feet, the holes being as deep as 11 feet in some places. The eastern buttress was taken down and rebuilt after the foundation for it had been reformed of concrete. The space between the two buttresses and between the buttresses and the abutments was similarly treated and the holes below filled with blocks of stone carefully packed by hand, after which new planking was placed over the whole width of the tailrace on a length of some 60 feet. The breastwall was also thoroughly grouted and a masonry wall on the east side of the tailrace torn down and replaced by a concrete wall.

The iron covering on the roof of St. Gabriel shed No. 2 which was completely worn out, was renewed, such of the plank supporting it as was found unsound being also replaced.

After a protracted rain in December last, the syphon culvert above Cote St. Paul bridge became choked by an accumulation in its outlet of a quantity of refuse and the low lands along the canal at that point were flooded during a couple of days. The obstruction having been removed and the conduit thoroughly cleaned by the rush of water which followed, a strong iron rack was placed at the mouth of the inlet and a plank roof built over the syphon well in order to prevent refuse being either carried or dumped into it in future.

The macadamizing of the road on the south side of the canal above Côte St. Paul bridge was continued during last summer, some 6,000 feet of it being built before the winter set in. An improvement on the work done previously was the compacting of the road metal with a heavy steam roller hired from the Municipality of St. Henry. This road is now completed with the exception of 700 feet, the stone for which is on the ground.

Besides the above a large amount of work was performed during the year in maintaining the various structures, viz., locks, bridges, piers, wharfs, buildings, fences, roads, &c.

Traffic was unusually heavy throughout the year and as it increases, the demand for wharf accommodation in the lower section of the canal becomes greater. A good means of meeting this want would be the building of the large basin in the river as sketched out on the plan furnished you with my report of January 7, 1901, or the building of another basin off basin No. 2, on the site of the present dry dock.

I again beg to call your attention to the fact that owing to the larger class of vessels now using the canal, the passage way at both Brewster's and Côte St. Paul bridges is practically too narrow. The swing at these points only covers a channel 45 feet in width on either side of the centre pier, the bridge between the swing and the banks being formed of two small piers and fixed spans. I would strongly advise the replacing of the said two antiquated bridges by steel structures of sufficient length to dispense with the fixed spans.

DEEPENING BETWEEN LOCK NO. 2 AND LOCK NO. 3.

The work done under the above head during last year consisted mostly in the deepening of the whole of basin 3 and part of basin 4, St. Gabriel, to one foot below

the plane of the mitre sill of lock No. 3. Some 26,000 cubic yards of material were dredged out and deposited into the harbour wharfs. At the close of the year Dredge No. 2 was engaged in completing the excavation in basin No. 4.

POWER HOUSE AND ELECTRIC STATION AT COTE ST. PAUL.

During winter all the electric machinery was put in place and a few minor changes made in the building. About the middle of April last everything was in running order.

The station is equipped with two 60-inch special new American turbines, driving the generators and one 16-inch turbine of the same make running the exciter, switchboards, generator panel, transformers, &c.

After the canal had been unwatered in April, the bottom of the wheel pit consisting of soft rock, was found to have been considerably scoured out. In order to prevent further scouring a heavy concrete floor was laid over the whole space care being taken to thoroughly protect the foundation walls of the building, and a piece of cement rubble wall some 15 feet in length was built as a protection for the cribwork forming the north side of the tailrace.

The whole of the canal from Montreal to Lachine is now electrically lighted from our two stations. The machinery for the operation of the lock gates and bridges will be installed next spring.

LAKE ST. LOUIS CHANNEL.

Dredge No. 2 was sent up to Lake St. Louis on July 17, 1901. For a few days she was kept busy breaking up and removing wrecks of barges which were in the way of navigation, and attempting to deepen a channel leading from the main one to the wharfs in the entrance. This latter work proving difficult beyond expectation and there being no special appropriation for it, it was given up for the time being and the dredge moved to the new channel where she kept at work for 3 weeks removing stray boulders and excavating a dangerous shoal on the north side in the vicinity of lightship No. 2.

HYDROGRAPHIC SURVEY.

The hydrographic survey was resumed at the end of August, 1901, and continued till the end of November. During that period, soundings were taken along parallel lines 200 feet apart and a topographical survey of the shores was made from Ste. Anne to Beaurepaire.

As expected the last summer's work disclosed the existence of an almost straight deep channel from the wharf on Ile Perrot to the foot of Lindsay's Island where it opens in the main channel.

The map inclosed herewith will show that the new channel is over 14 feet deep on a minimum width of 200 feet and that the removal of a couple of small shoals would not only make it perfectly straight but would also increase the width of the deep water area to at least 300 feet.

Field work was resumed on this survey during May last. The section between Beaurepaire and Pointe Claire is now under way and will be completed this season. Permanent triangulation points are also being established ; they consist of heavy blocks of concrete set down in the ground below the frost line.

REBUILDING WALL, SOUTH SIDE OF BASIN NO. 2.

Work on this wall was resumed on April 1 last, the water in the river having fallen this year much earlier than usual. With the fine weather that prevailed all through the month and the greater facilities experienced in securing men, a much greater quantity of concrete could be laid than was possible the year before.

Operations have so far been confined to underpinning the old masonry wall by means of detached blocks of concrete 9 feet deep, 10 feet wide at base and 8 feet wide at top. These blocks are built at least 4 feet under the foundation of the present wall, leaving a step in front of it, 4 feet wide, upon which the new concrete face wall will be started. The spaces left between the blocks built during one season are filled in in the same manner the following spring.

The length of wall to be so treated is 1,560 feet, of which only about 400 feet have been laid up to date.

The above construction works, which were until April last under the supervision of either Mr. L. G. Papineau or Mr. L. S. Pariseau, are now being superintended by Mr. H. R. Lordly, who replaced Mr. Papineau now in the Public Works Department.

RIVER ST. PIERRE.

Some 350 cubic yards of dry retaining wall were rebuilt on both sides of the collecting drain connected with this river during the fall of 1901, and a concrete overflow weir with stone masonry wings was built at a point near Rockfield where the river had been diverted. In addition to these works the collecting drain was cleaned on its whole length and its banks cleared of brush and weeds.

NEW LOCK.

It having been decided not to proceed at present with the construction of the new entrance lock for which tenders had been called for last year, nothing was done in connection with the work beyond the testing of a lot of 25,000 barrels of cement which had been delivered in December, 1901, by Messrs. F. Hyde & Co. The brand supplied was 'Ironclad' and the tests made gave very satisfactory results.

A pretty large quantity of this cement was used during the spring on the various canals of this division, the value being in all cases credited to the new lock appropriation.

SLOPE WALLS.

About 2,500 cubic yards of dry wall were built last spring by Mr. J. B. DeLorimier, contractor for this work. It is expected that the rebuilding on the north side of the canal will be completed in 1903.

The bottom part of these walls can only be built in April of each year. The work done during that month is only brought up to the level of the water in the canal and the part above that level is reserved for the summer season. The contractor is now engaged on the latter, as well as delivering stone for next year's operations.

REPAIRS TO VESSELS.

None but ordinary repairs were performed in connection with the dredging fleet during last year, except the rebuilding of the hull of the small tug Josephine which was entirely worn out, and the purchasing of a pair of engines for the new tug which is being provided in connection with the Lake St. Louis survey, the hull of which was built in 1901.

REGULATING WEIR AT LACHINE.

As reported last year, this work was completed in 1901, and there is now nothing further to report than the preparing of the final estimate, the details and calculations of which were handed you before the close of the fiscal year.

The new weir has been doing splendid service since its completion; the proper feeding of the canal is now ensured.

MILL STREET PAVING.

The portion of Mill street lying between the tailraces of waste weirs No. 1 and No. 2, was paved with syenite blocks laid on a 6 inch concrete foundation in the fall of 1901, the contractors for the work being "The Sicily Asphaltum Paving Co." Both sides of the roadway, which is 30 feet wide, were lined with heavy curbstones and necessary drainage pipes laid at the lower points.

This work was done in a very substantial manner and to the entire satisfaction of the city authorities, who have agreed to take over the street and maintain it in future.

In connection with the above work, the bridge over the tailrace of waste-weir No. 1, was widened, the stone abutments being entirely removed and rebuilt, and the old wooden superstructure replaced by heavy steel girders.

The construction of and the preparing of the final estimate for the new regulating weir, as well as the paving Mill street, was supervised by Mr. G. L. Viger.

BEAUHARNOIS CANAL.

Length, 11¼ miles; 9 locks, 200 feet x 45 feet; 9 feet of water on sills; total rise, 82½ feet.

Since the opening of the Soulanges canal to navigation, the traffic through the Beauharnois canal has been very light, a few market boats only using it. The day will soon come when it will have to be permanently closed. A number of bridges, roads, &c., will, however have to be maintained by the department unless the whole canal were leased for industrial purposes.

REPAIRS AND RENEWALS.

The rebuilding of the waste weir at lock No. 10, which had been commenced in the spring of 1901, was completed last fall. The bottom part of the breast and wing walls was made of concrete and the stone in the old weir used in the top part of the structure. The temporary weir was also removed and the banks of the head race repaired.

A ferry scow was built during the year and considerable work performed on the Hungry Bay dyke which had been seriously damaged by the waters of Lake St. Francis.

CHAMBLY CANAL.

Length, 12 miles; 9 locks, 118 feet x 22⅓ feet; 6½ feet of water on the sills; total rise, 74 feet.

The only interruption to navigation on this canal during the fiscal year occurred on July 4, 1901, when the sill of lock No. 3 gave way. The repairs occupied about 9 hours.

REPAIRS AND RENEWALS.

Outside of ordinary repairs the following works were performed:—

A pair of gates was built and placed at lock No. 8. The sills of locks 3, 4 and 6 were overhauled and bedded in concrete.

The lower sill of lock No. 9 at the lower entrance had been leaking considerably for some time and was a menace to the navigation of the canal. In order to repair it a coffer-dam was built at the foot of the wing walls and the lock pumped dry. It was found that the cause of the leak was due both to the sill which had been worn out and to the gates which did not properly fit the hollow-quoins. A new sill bedded in strong concrete was placed, the gates trimmed and the floor of the lock above the gates rebuilt with tongued and grooved plank. The leak is now completely stopped, but the top of

the walls, from a few feet above the hollow quoins to the lower end will have to be rebuilt shortly.

The repairing of the pier forming the east side of the lower entrance has been completed except for the planking of a portion of the eastern face. The plank floor on this pier has been removed and replaced by a heavy coat of gravel which will outlast the timber work and will do away with costly repairs each year.

A part of the wharf above bridge No. 8 at Chambly was widened some 12 feet on a length of 250 feet.

A culvert under the Main street at Chambly which consisted of a wooden box about 2 feet square having become choked, a new one was built which necessitated the excavating of a trench 128 feet long and 18 feet deep.

COLLECTING DRAIN.

The collecting drain along the front street in the town of St. Johns was extended, during the fiscal year just ended, from St. Charles street to Lemoine street a distance of 1,750 feet and thence to the shore of the Richelieu river, where a flushing trap was provided for the purpose of cleaning the drain at high water in the spring.

The work was performed under contract by the late Louis Forgue.

It consists of vitrified clay pipes, 24 inches in diameter with concrete manholes 300 feet apart. The portion between St. Charles and St. James streets is composed of two such pipes laid side by side, and the balance of only one pipe. The work was completed in the last days of June last.

SYPHON CULVERT.

A contract for a concrete syphon culvert to replace the old wooden structure under the Chambly canal at the foot of Ste. Thérèse Island, was awarded to Mr. W. J. Finn on February 10, 1902. By the end of that month the contractor had built two substantial coffer-dams and the excavation on the site of the culvert was well advanced. However, the unusually heavy rains during the month of March brought such a quantity of water upon the contractor's works, that the upper dam was carried away. This was rebuilt and work resumed, but a new flood ensued which washed away both banks of the canal for a considerable distance at the site of the dams. When the water receded the season was so far advanced that the contractor could not possibly complete the work for the opening of navigation. He was, therefore directed to re-form the banks, and put everything in good order for the opening of the canal on the 1st May.

The contractor will resume operations at the close of navigation next fall, and the work will be completed during the winter.

ST. OURS LOCK.

Length of canal, $\frac{1}{8}$ mile; one lock 200 x 45 feet; 7 feet of water on the sills; total rise, 5 feet.

There was no interruption to navigation on this section during the year.

The only works of importance performed here in 1901–2 were the following:—

Repairing two ice breakers above the submerged dam, the four top courses of timber being renewed and some 200 cubic yards of field stone being deposited in the pockets.

Building a blacksmith shop 28ft. x 24ft., and fully equipping it.

Building a shed 20ft. x 20ft. for the storage of lumber.

Rebuilding 2 pairs of spare lock gates to replace decayed ones, and a shed 68ft. x 28ft. for storing them.

During last spring the wharfs at both entrances, which had been considerably damaged by moving ice were overhauled, a section about 200ft. in length being almost entirely rebuilt.

ST. OURS DAM.

The repairing of this dam reported on last year, was completed last summer. The whole structure was rebuilt, from the apex to about 7 feet below it. Most of the frame timber used was white pine and the covering consists of tongued and grooved tamarack 4 inches thick. The whole work was most satisfactorily done by the contractors, Messrs. Finn & Filion.

A detailed final estimate with plans and cross sections was handed you some months ago.

The enginering work in connection with the collecting drain at St. Johns, the syphon culvert under the Chambly canal and the St. Ours dam, was performed by Mr. L. S. Pariseau.

OTTAWA RIVER CANALS.

STE. ANNE'S LOCK.

Length of canal, $\frac{1}{8}$ mile; one lock 200 x 45 feet; 9 feet of water on sills; total rise, 3 feet. Old lock still available, 200 x 45 feet; 6 feet of water on sills; total rise, 3 feet.

Navigation at this point was uninterrupted during the fiscal year.

All the structures in connection with the lock and its entrances were kept in a good state of repair and the following works were performed outside of ordinary maintenance.

The puddle trench intended to staunch the old lock was completed.

The pier at Ile aux Tortues was repaired by the addition of seven courses of timber at its upper end.

A new shed was built to replace the old one on the south side of the lock.

During last spring's high water the wing dam forming the south side of the upper entrance to the old lock was considerably damaged by ice. An appropriation was voted at last session of Parliament for the purpose of repairing it. The work will be done at low water this fall.

CARILLON AND GRENVILLE CANALS.

CARILLON CANAL.

Length, $\frac{3}{4}$ mile; 2 locks, 200 x 45 feet; 9 feet of water on sills; total rise, 16 feet.

GRENVILLE CANAL.

Length, $5\frac{3}{4}$ miles; 5 locks, 200 x 45 feet; 9 feet of water on sills; total rise, $43\frac{3}{4}$ feet.

Both these canals are under one overseer. They are separated by a stretch of navigable river about five miles long, and between them is to be found the old Chute-a-Blondeau lock which has been abandoned since the completion of the dam at the head of the new Carillon canal in 1883, the rise at that point having been practically obliterated.

REPAIRS AND RENEWALS.

The only work of some importance performed on the above canals during the fiscal year, beyond ordinary repairs consisted in the staunching and strengthening of a portion of the Carillon submerged dam.

On October 15, 1901, I reported in detail as to the damage suffered and the possible cost of the repairs. Work was commenced in November, 1901, the water being

very low. But as the work neared completion a sudden thaw caused the river to rise so rapidly and to such an extent that work had to be abandoned. Some of the cribs already placed in position as well as a few booms were carried away. The cold weather that followed caused ice to form on the crest of the dam to an unprecedented height, the channel becoming almost entirely blocked and the water above the dam rising to spring flood level.

In March last the portions of the apron which had been uncovered of their timber flooring were temporarily repaired so as not to be damaged during the spring freshet.

The permanent repairs will be resumed at low water this year.

CARILLON CANAL.

Guide Pier at the Upper Entrance.

Messrs. Martineau, Fils & Lemoine, contractors for the above work, commenced operations at the beginning of July, 1901. Owing to the limited space on and around the pier, considerable difficulty was experienced in the storing of materials and the disposal of the plant. However, the tearing down of the old pier was begun on the 17th of the month.

Last season was exceptionally favourable for proceeding with the work, the water level being unusually low and the weather fine until the close.

On August 29 some of the broken stone foundation had been put in and the concrete work started. By September 20 the walls on both sides of the pier were completed on a section 118 ft. in length. The 2nd section, 160 ft. long, was at once proceeded with. Concrete on it was started on October 29 and completed on December 3, except the face finish and the top moulding.

The river froze on November 27 and the latter part of the work could only be proceeded with on the mouldings.

Preparations were then commenced with a view to complete the filling between the concrete walls during winter with stone taken out of a quarry on the north side of the canal entrance.

In January a solid bank of ice formed and the water rose to an unprecedented height, flooding the quarry and putting an end to operations there.

Early in May this year the contractors commenced preparations for the season's work. At the close of the fiscal year another section of the old work, 173 feet in length, was being taken down, but the water was still 6 feet above the foundation level and falling very slowly. There was then a little more than half of the concrete work done, and the contractors were in hopes of completing the balance during the present season.

The cement used on this work is the 'Dykerhoff' and 'Condor' brands. It is being supplied by the department.

A careful examination and record of the ice action on the section of the Ottawa river between Grenville and Carillon were made throughout the past winter until the ice ran out at Carillon on the nights of March 24 and 25, about three weeks earlier than in the spring of 1901.

The low water of last summer continued until the middle of December, when large fields of ice came down and landed on the crest of the dam, completely blocking the channel except in two places where the water had a free passage on an aggregate width of some 400 feet. The weather being cold the loose ice deposited on the dam was soon converted into a solid mass some 15 feet high in places, and the water rose rapidly, reaching its maximum of 11 ft. 6 in. above the summer level on January 9.

A portion of the ice crest then gave way and a fall of 2 feet in the level above immediately resulted. By the middle of February the ice had so far gone from the dam that the river above it had fallen down to normal level, but the crest was not entirely cleared of ice before March 14.

The highest water last spring occurred on April 2, but was 3·75 ft. below the level of the freshet of January last, and 2 feet below the high water of 1901.

Nothing extraordinary occurred in connection with the ice and water conditions in other parts of this section during last winter.

During the winter Mr. F. J. Lynch, the resident engineer at Carillon was engaged in making a survey of the Carillon and Grenville canals. The plan of this survey will show all the structures on both canals with their exact positions and dimensions. It is intended as a reference document. Similar plans have already been prepared for the Lachine and Chambly canals and have proved very useful in a number of cases.

I have the honour to be, sir,
Your obedient servant,

ERNEST MARCEAU,
Superintending Engineer, Quebec Canals.

P.S.—Annexed to this report are tabular statements showing the highest and lowest water on the mitre sills of the locks at the upper and lower entrances of each canal during the fiscal year ended June 30, 1902.

E.M.

QUEBEC CANALS.

STATEMENT of the opening and closing of navigation.

	Closing.	Opening.
	1901.	1902.
Lachine Canal	November 30	May 1.
Beauharnois Canal	" 30	" 16.
Chambly Canal	" 30	" 1.
St. Ours Lock	" 23	April 8.
C. & G. Canals	" 30	" 28.
Ste. Anne's Lock	" 28	" 22.

LACHINE CANAL.

STATEMENT showing the depth of the river water on the mitre sills of new Lock No. 1, at lower entrance, and new Lock No. 6, at upper entrance, during the fiscal year ended June 30, 1902.

MONTHS.	NEW LOCK NO. 1, LOWER SILL.				NEW LOCK NO. 5, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	18	9	18	0	16	8	15	4
August	18	5	17	1	15	8	15	0
September	17	8	16	2	15	5	14	8
October	16	11	16	3	15	4	14	8
November	16	7	15	11	15	0	14	2
December	30	7	16	0	17	5	14	6
1902.								
January	33	0	26	10	16	11	14	10
February	27	7	24	5	15	8	13	0
March	37	11	25	1	19	1	13	1
April	30	7	21	3	19	1	17	6
May	22	9	20	9	18	3	17	6
June	22	4	20	2	18	0	17	1

Mitre sill of old Lock No. 1, 2 ft. 2 in. above sill of new Lock No. 1.
Mitre sill of old Lock No. 5, 5 ft. above sill of new Lock No. 5.

BEAUHARNOIS CANAL.

STATEMENT showing the depth of the river water on the mitre sills of Lock No. 6, at lower entrance, and Lock No. 14, at upper entrance, during the fiscal year ended June 30, 1902.

MONTHS.	LOCK NO. 6, LOWER SILL.				LOCK NO. 14, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	11	5	10	0	11	8	11	0
August	10	3	9	11	11	2	10	10
September	9	11	9	7	11	2	10	8
October	9	6	9	2	10	11	10	8
November	9	3	9	0	10	10	9	10
December	10	10	9	2	11	6	10	2
1902.								
January	16	6	10	6	12	0	11	2
February	16	8	13	5	11	4	9	10
March	14	8	12	6	12	6	10	2
April	13	6	12	0	11	7	10	7
May	11	4	12	0	11	7	11	2
June	12	4	11	6	11	7	11	2

CHAMBLY CANAL.

STATEMENT showing the depth of the river water on the mitre sills of Lock No. 9, at lower entrance, and Lock No. 1, at upper entrance, during the fiscal year ended June 30, 1902.

MONTHS.	LOCK NO. 9. LOWER SILL.				LOCK NO. 1, UPPER SILL.			
	Highest		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	12	6	9	11	9	10	8	4
August	10	1	9	5	8	7	7	10
September	9	9	8	6	8	2	7	2
October	10	5	8	6	8	9	6	10
November	9	3	8	5	7	11	7	1
December	16	9	8	9	9	7	7	5
1902.								
January	12	6	10	4	9	7	8	6
February	13	11	12	2	8	10	8	4
March	22	10	12	6	12	10	8	6
April	19	8	15	11	12	10	11	7
May	16	3	13	6	11	9	10	2
June	14	11	13	4	10	11	10	2

ST. OURS LOCK.

STATEMENT showing the depth of the river water on the mitre sills of St. Ours Lock during the fiscal year ended June 30, 1902.

MONTHS.	LOCK No. 1, LOWER SILL.				LOCK No. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	10	10	7	10	10	1	8	5
August	8	6	7	1	8	6	8	3
September	8	6	6	3	9	2	8	4
October	7	4	6	3	10	3	8	4
November	7	6	5	11	9	3	8	3
December	17	3	7	5	14	1	8	6
1902.								
January	11	2	9	0	10	0	8	11
February	10	0	8	4	9	4	9	0
March	23	3	9	1	19	1	9	2
April	19	5	14	4	15	7	12	8
May	15	0	12	1	12	11	11	1
June	14	4	10	10	11	11	11	5

STE. ANNE'S LOCK.

STATEMENT showing the depth of the river water on the mitre sills of Ste. Anne's Lock during the fiscal year ended June 30, 1902.

MONTHS.	LOCK No. 1, LOWER SILL.				LOCK No. 1, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	11	9	10	4	12	10	11	3
August	10	7	10	1	11	3	10	7
September	10	3	9	3	10	8	9	6
October	10	0	9	6	10	5	9	8
November	9	8	9	1	10	9	10	3
December	12	5	9	6	11	11	10	4
1902.								
January	12	2	10	3	11	11	11	2
February	11	4	9	2	11	10	10	6
March	14	3	9	2	15	10	10	6
April	14	0	12	7	16	4	14	8
May	13	2	12	4	15	8	14	5
June	12	9	12	1	14	11	13	8

CARILLON CANAL.

STATEMENT showing the depth of the river water on the mitre sills of Locks Nos. 1 and 2, Carillon Canal, during the fiscal year ended June 30, 1902.

MONTHS.	LOCK NO. 1, LOWER SILL.				LOCK NO. 2, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	13	8	12	0	14	2	11	10
August	12	3	11	8	12	3	11	3
September	11	11	10	10	11	4	10	5
October	11	4	10	6	11	2	10	5
November	11	11	11	4	11	5	11	0
December	13	4	11	8	16	8	11	0
1902.								
January	13	6	12	5	21	6	12	7
February	12	6	11	11	13	3	10	5
March	17	11	12	0	17	9	10	7
April	17	11	16	2	18	1	16	6
May	17	11	16	2	18	0	16	4
June	16	5	16	0	17	0	15	6

GRENVILLE CANAL.

STATEMENT showing the depth of the river water on the mitre sills of Locks Nos. 3 and 7, Grenville Canal, during the fiscal year ended June 30, 1902.

MONTHS.	LOCK NO. 3, LOWER SILL.				LOCK NO. 7, UPPER SILL.			
	Highest.		Lowest.		Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
July	17	11	14	3	14	6	11	8
August	14	7	13	0	12	0	10	11
September	13	11	12	3	11	0	9	0
October	13	5	12	3	10	8	9	1
November	13	8	13	5	10	11	10	1
December	19	0	13	4	13	0	10	2
1902.								
January	24	0	15	4	12	3	11	4
February	20	6	15	7	11	4	10	0
March	21	10	15	7	18	6	10	4
April	21	11	20	6	19	0	17	5
May	22	4	20	0	19	0	17	3
June	20	8	18	9	17	10	16	0

TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE,
PETERBORO, July 1, 1902.

SIR,—I have the honour to submit the annual report on the works on the Trent Canal under my charge for the fiscal year ending June 30, 1902.

The Trent Canal is a term applied to the several stretches lying for the greater part along the valley of the Trent River, between the Bay of Quinté, on Lake Ontario, and Georgian Bay on Lake Huron, which, however, in their present condition does not form a continuous line of navigation. The object of the works at present going on is to connect these several water stretches by short canals so as to form a continuous line of land-locked navigation from Lake Huron to Lake Ontario. A glance at the map of the district will show how comparatively small the length of waterway to make or improve is to the length already provided by nature in the way of its beautiful and deep lakes and rivers. The total distance between Lake Huron and Lake Ontario is about 200 miles. By utilizing the numerous lakes and rivers and taking advantage of the natural features of the lands to make flooded reaches, it is hoped that not more than 15 or 20 miles of the total length will be actual canal. The Imperial government as far back as the year 1835 chose this route as being the most natural and feasible to make a water communication between Lake Ontario and Lake Huron, and they spent considerable sums in carrying out this project, and in fact a sufficient sum of money was voted by the government at that time to construct that part of the work lying between Lake Ontario and Balsam Lake. The works then constructed have ever since been used for local traffic.

When the two divisions at present under construction are completed, a continuous line of navigation between Heeley's Falls and the ports on Lake Simcoe, a distance of about 160 miles, will then be available. Though a draught of six feet is provided on all the sills, the land necessary to flood for a draught of eight feet has been purchased on the new sections at present under construction, so that if required a draught of 8 feet could be provided at a comparatively little extra cost.

MAINTENANCE.

Navigation closed on both the upper and lower reaches November 19, 1901, and opened April 9, 1902.

The height of water on the mitre sills of the locks was very fair throughout the season, though there is still room for very much improvement in regard to the regulation of the water on the different reaches. The regulation of the water is under three different managements, namely, the Dominion government, the Ontario government, and the lumbermen, consequently it is not surprising that there are complaints regarding the management of the water during the dry season. Owing to the immense country drained and the country becoming every year more cleared, the proper regulation of the water becomes more difficult. The regulation of the water also between Lakefield and Peterborough is, under the present circumstances, very unsatisfactory, and as the power at the several dams along the river is developed, the trouble will be increased. Owing to the mills at Lakefield using all the surplus water, any temporary stoppage in the mills almost stops the entire flow, in consequence the mills below are often stopped for a time. If the power owners at Lakefield and other dams were to notify the caretakers of the dams, or otherwise compensate for the stoppage by allowing extra water to

escape, when it was necessary to stop temporarily for repairs, the cause of complaint would be removed.

With reference to the water supply, it is not generally known that such a vast system of reservoirs exists as there are in the country to the north of the direct route of the canal. From a recent survey of these reservoirs, it was ascertained that there are over fifty dams at present constructed which control about 70,000 acres of water in which over 25 billion cubic feet of water can be stored, not taking into account the large quantity that could be stored by many new dams that could be constructed. The proper storing and regulating of the large quantity of water above referred to is a most important matter, not only to navigation but to the vast commercial interests that are located along the valley of the Trent. The total number of lockages for the season was 5,185, being an increase of 857 over last year's lockages, though this does not fairly represent the traffic on the canal, as owing to many of the longer routes of the steamers not passing through a lock, no record of the traffic is kept. There are over thirty steamers engaged in commerce between Lakefield and Balsam Lake, besides a large number of small steamers belonging to private individuals.

There are five steamers on the reach between Peterborough and Heeley's Falls and several on Lake Simcoe. Many of the larger steamers are of considerable size, some of them carrying as many as 450 passengers.

REPAIRS.

The following repairs were executed at the different stations :—

CHISHOLM'S RAPIDS.

The dam at this station became so dilapidated that some three or four years ago I reported it was a waste of money to make further expenditures in the way of repairs upon it. An appropriation was made for a new dam some years ago, but it was withdrawn. About half the dam has since gone out. The lock and canal at this place are in a good state of repair.

HASTINGS.

New upper lock gates were constructed and hung. The lock walls were repointed and the mitre sills were caulked. A new quoin stone was set at the north-west gate to replace the old stone which was badly cracked.

OTONABEE RIVER.

Some dredging was done at the mouth of the river, removing some sawdust and silt that had lodged in the navigation channel.

PETERBOROUGH.

A new storehouse was built for the storage of tools, material, &c.

LAKEFIELD.

The flooring of the high level bridge was renewed and part of the platform of the dam was removed.

YOUNG'S POINT.

Part of the old dam was left remaining in above the new dam. This prevented the free flow of the water into the flumes of the Lakefield Portland Cement Company. This old part of the dam was removed by dredging.

STONY LAKE.

Owing to the carelessness of the men in charge of the saw-log drives, the buoys marking the navigation channel are continuously being removed from their places. There is no necessity for this state of things, and is entirely due to carelessness of the foremen in not pressing upon their men the importance and danger caused by the removal of buoys. Some drastic means will have to be taken to remove this danger to the travelling public. The buoys are all substantially put in and cannot be removed without some extraordinary force be applied. A great number of these buoys have to be replaced every season.

BURLEIGH FALLS.

The lower wooden entrance pier at the west side was so dilapidated that it was taken down and replaced with a concrete pier, which was at the same time extended by 125 feet in length. The upper landing pier was planked over and raised for a length of 75 feet.

BUCKHORN.

The valves, swinging gear and anchorage of the gates were repaired. New capstan chains were put on the lower gates.

BOBCAYGEON.

The long dyke adjoining the dam on the north side was gravelled for a length of 1,000 feet. This has stoppad the great leakage which went through this dyke before it was gravelled. The flooring of the lock chamber and the upper mitre sill were repaired. The wall between the lock and the mill raceway was staunched and pointed. New stoplogs were provided for the dam where required.

FENELON FALLS.

The old guard timbers at the south road approach to the swing bridge were so rotten that they were removed and replaced with substantial masonry walls on both sides of the roadway. The swing bridge was repainted. The culvert which carries the creek below the lower wharf became stopped during the freshet and burst. This was repaired. Ten new stoplogs were replaced in the dam. A new valve was placed in one of the centre gates to take the place of the old one, which had broken across the corner. Other minor repairs were done to the gates and lock.

OTHER REPAIRS.

A new scow, 60 x 16 feet, for use in the work of repairs, was constructed. A considerable amount of repairs was made to the dredge, and two of the dump scows were almost wholly rebuilt.

INCOME.

The following chargeable to income was executed :—

The work of dredging was continued on the shoals at 'Yankee Bonnet,' 'Dangerfield' and below Peterborough lock, on the Otonabee river, and on the Trent, near Hastings.

BUOYING OUT CHANNEL.

Buoys and anchors for buoying out the channel between Lakefield and Peterborough were prepared, but as this reach was not ready to be opened for navigation the placing of the buoys was deferred till the current year.

HASTINGS.

New upper lock gates of solid timber were constructed and hung.

HEELEY'S FALLS.

Five new sluices, 25 feet in width, were constructed in the flat tumble dam, part of the framework of the old dam having been removed for that purpose. These sluices have been of the greatest service in providing greater area for the discharge of the freshets, which was greatly needed.

CAPITAL.

Construction.

Section No. 1, Peterborough–Lakefield Division.—The contract for this section, which was awarded to Messrs. Brown, Love & Aylmer, was completed last year, with the exception of some dredging in the river below Lakefield and below Nos. 3 and 5 locks. The freshet this spring lasted till so late in the season that it was impossible to get to work till a very short time before the end of the fiscal year, at which time this work had not been completed. There is only about a month's work to do to complete this work.

Section 2, Peterborough–Lakefield Division.—The contract for this section was awarded to Messrs. Corry & Laverdure on May 21, 1896, and the time for completion was November 1, 1897, nearly five years ago. As I reported last year that from the mode of operation adopted by this firm it is difficult to say when the work will be completed. There was only about a month's work to be done by an ordinary force of men at the beginning of this season, but at the present date it will still take three months or more to complete the work at the present rate of progress. There is still a considerable amount of concrete to do in connection with the hydraulic lock, as well as excavation in the prism of the canal below the hydraulic lock; finishing up the sodding, protection lining, trimming slopes, &c.

Section No. 1, Simcoe–Balsam Lake Division.—The contract for this work was awarded to Mr. Andrew Onderdonk and has been satisfactorily completed. The plans and calculations for the final estimate are now being prepared.

Section No. 2, Simcoe–Balsam Lake Division.—The section is under construction with Messrs. Larkin and Sangster as contractors. The work has progressed satisfactorily. The greater part of the excavation has been completed. The excavation for the pits of and the concrete walls for the approach to the hydraulic lock have been well advanced and there is a fair prospect that they will be nearly completed this fall. The substructures for all the bridges are completed, awaiting the superstructures. The walls of hydraulic lock No. 2 are yet to be excavated and prepared for the steel work, and the pits for the chambers are to be lined with concrete.

Section No. 3, Simcoe–Balsam Lake Division.—The contractors for this section are Messrs. Brown & Aylmer. Fair progress on this section has been made, but owing to the effect of the wet weather on the heavy clay on this section the work of excavation has been much delayed. Not quite half of the excavation of the section has been completed. The structures so far completed are lock No. 5, the culvert and bridge piers at the Portage Road crossing; and the abutments of the Grand Trunk Railway crossing. Arrangements were made between the contractors and the Grand Trunk Railway Com-

pany and the department whereby the crossing of the railway was to be by means of a high level bridge instead of a swing bridge as at first proposed; the Grand Trunk Railway Company undertaking to do the filling for the approaches at the contractors price for filling. The work was to be completed by May 1 last, but at the end of the fiscal year very little of the filling had been done. The contractors have built a dredge for excavating the reach between lock No. 4 and Lake Simcoe. They have not yet started this excavation.

Hydraulic, No. 1. Peterborough.

The steel work of this hydraulic lock was awarded to the Dominion Bridge Company. Owing to the delay caused by the contractors for the concrete work of the lock not being completed no steel work (except some of that which is to be embedded) has been put in place. A rigid inspection of the main hydraulic presses by tests have been gone on with for some months. Considerable trouble was experienced in getting the cast iron ram sections cast of the proper consistency and compactness, but this was finally accomplished. Nearly all the steel work has been prepared and stored on a lot adjoining the bridge works, which has been leased to the government for that purpose.

Lock tender's house.

A dwelling-house for the lock tender was constructed at the Peterborough lock.

Plant.

The dredge *Otonabee* has been employed continuously throughout the season. Most of the season it was rented to the contractors, Messrs. Brown, Love & Aylmer for the excavation of the river on Section 1, Peterboro–Lakefield Division.

The dredge *Trent* was employed in dredging shoals in the River Otonabee between Peterborough and Rice Lake and in the Trent river near Hastings.

The tug *Empire* has been fully employed throughout the season in hauling scows of dredge material from the dredge, buoying out the navigation channel, delivering timber, gravel and stone for the various works of repair along the route.

I have the honour to be, sir, your obedient servant,

RICHARD B. ROGERS, M.I.C.E.,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Railways and Canals.

RIDEAU CANAL.

SUPERINTENDENT ENGINEER'S OFFICE, OTTAWA, July 15, 1902.

SIR,—I have the honour to submit herewith my annual report on the Rideau Canal, under my charge, for the fiscal year ending June 30, 1902.

Navigation closed at Ottawa, November 25, 1901.
" " Kingston Mills, November 18, 1901.
" opened at Ottawa, May 1, 1902.
" " Kingston Mills, May 1, 1902.

The depth of water maintained in the various levels throughout the whole season of navigation, was excellent: no trouble or delay on account of low water, having occurred anywhere.

The freshet this spring occurred unusually early; but fortunately was not nearly so violent as usual, still some damage was done to the works, as will be detailed under the headings of the various stations.

The principal works and repairs executed along the line of the canal, at the various lock stations, is as follows:—

OTTAWA.

Some repairs were made to the basin wharfs, by putting in new stringers and planking; and the roadway behind the wharfs was also macadamized and graded up where required.

A new frame storehouse for cement, and also for housing our portable engine, was built at the locks.

The upper piers of lock No. 7 were taken down and rebuilt by our own masons, the stone having been cut in Elgin quarry during the summer; and I may here state that considerable repairs are necessary for the masonry of this station, which is built of stone of very poor quality. These repairs will of course be carried out gradually from year to year; it being proposed this summer, to cut stone in the quarry for two piers of lock No. 5, and also new coping for the uppertown side of lock No. 8.

The grounds round the locks have been put into first-class order, the slopes and flats being nicely kept, and flower beds placed therein, so that I think I may be allowed to say that the station in general presents a most creditable appearance, and is in keeping with the surrounding improvements lately made in that portion of the city.

STEWARTON BRIDGE.

New plank was placed on both approaches, and small repairs were made to the swinging gear of the swing span.

BANK STREET BRIDGE.

Small repairs were made to the approaches and to the machinery and rests of the swing.

HARTWELL'S LOCKS.

The timber piers under the small bridge across the Waste Weir were rebuilt by our own carpenters. The tow-path road was raised and graded, both above and below the station, which on account of the very heavy traffic passing continually over it, is now an annual necessity. The lockmaster's house was sheeted outside and clapboarded and painted. The coping of the locks throughout this station will soon require to be taken up and replaced with new stone.

HOGSBACK LOCKS.

The whole chamber wall on the west side of the lower lock was taken down and rebuilt by our masons last winter. This wall had for years been bulging out, and had become dangerous; but it is now new. The large abutment crib on the west side of the old bulkhead was taken down and rebuilt by our carpenters. New sills were placed under some of the outbuildings at the lock house, and the said buildings were reshingled. Repairs were made to the protection boom, and also to some of the bents of the east bulkhead. This bulkhead is about worn out, and will be rebuilt next winter. A large quantity of gravel was placed on the tow path road, between this station and Hartwells. Some of the planking below the apron of the west bulkhead was carried away by ice this spring, but will be replaced during the present summer.

BLACK RAPIDS LOCK.

The damage done by ice to this station last year was repaired, and the boom straightened. A new ice-breaking crib was to have been built here before the ice broke up, but on account of the unusually early freshet this year, it could not be built in time; but the timber and stone, which is all on the ground, will be used for this purpose next winter. Small repairs were made to the lockmaster's house and outbuildings, and sundry small repairs to the station.

LONG ISLAND LOCKS.

Two new sluice frames were put into the middle lock. Two new swing bars on lock gates. The swing bridge was replanked, and the storehouse was repaired and reshingled.

MANOTICK BRIDGE.

The whole bridge, excepting the swing span, was rebuilt last winter. The piers were rebuilt by our own carpenters, from low water mark up, and a fine steel superstructure was built under contract with the Dominion Bridge Company of Montreal. This bridge, which formerly consisted of five wooden spans and a swing span, is now of only three steel spans with a wooden swing. The removal of two piers has also given more outlet to the ice and water in the spring.

BURRITT'S RAPIDS LOCK.

Some stone and gravel were placed on the dam and embankments, and sundry small repairs made to the station. The swing bridge and the railing on both sides of its approaches were painted by the bridge tender last season.

WELLINGTON BRIDGE.

Sundry small repairs to planking, and painting, &c. done.

BECKETT'S LANDING BRIDGE.

Sundry small repairs done by the bridge tender. This bridge is to be entirely rebuilt next winter, with a steel superstructure.

NICHOLSON'S LOCKS.

One new pair of lock gates were put in last winter, and one new swing bar and six new chain blocks, and sundry small repairs to station.

CLOWES' LOCK.

Considerable damage was done to the slope at the back of the lock wall on the river side, during the freshet, by ice and water carrying away the stone rip-rap protection facing of the slope, and undermining the slope itself. However the slope will be repaired as soon as navigation closes, and a protection crib will be built along the face of the said slope. A new waste weir was built last winter, as well as the apron below; a coffer dam having been put in to do the work. The wing wall of the bulkhead was also taken down to the low water mark, and rebuilt by our masons.

A new fence was built along the northern boundary of the canal land to replace the old log fence, and sundry small repairs made to the station in general.

MERRICKVILLE.

Two pairs of lock gates were rebuilt. The fixed bridge across the waste water channel was replanked. The upper lock was grouted and a considerable quantity of leakage thus stopped. The early freshet prevented the south pier of the bulkhead from being rebuilt, but the timber is on hand, and the work will be done next winter instead. The south wall of the lower basin is to be taken down and rebuilt next winter, as well as the lower wing wall of the middle lock on the south side, which adjoins it. The stone for this will be cut in Elgin quarry during the summer; and the stone for the basin wall will be purchased in Merrickville.

MAITLAND'S LOCK.

The swing bridge was repaired and replanked, and the approaches on both sides were repaired; and sundry small repairs were made to the station in general.

EDMOND'S LOCK.

Several large stones were replaced in the retaining dam, from which they had been carried last year. The upper mitre sill of the lock was repaired, and the waste weir was repaired and replanked.

OLD SLY'S LOCKS.

A considerable quantity of grouting was done at this station, and repairs made to sluice frames, and sundry small repairs made to the station in general. Repairs to the piers above the locks, and also to some of the ice-breaker cribs, could not be made on account of the early freshet; but the timber is all on the ground, and the work will be done immediately after the close of navigation this year.

SMITH'S FALLS COMBINED LOCKS.

The old wooden sidewalk on the west side of the roadway leading from the north side of the canal to the swing bridge, was taken up and relaid with a granolithic walk,

in keeping with the granolithic sidewalk on the south side of the approach to the swing bridge.

The swing bridge was jacked up and moved, whilst the old wooden pivot pier was taken away, and a substantial stone pier built in its place; the work being done by our own men.

The long bridge leading to Jason Island was renewed in timber by our own men, and sundry repairs such as pointing, grouting, &c., were made to the station.

SMITH'S FALLS DETACHED LOCK.

Sundry small repairs were made to the station in general.

POONAMALIE LOCK.

Sundry small repairs were made to the station in general. The upper wing wall of the lock on the south side, is in bad condition, two of the submerged courses of stone being almost gone. This wall will be rebuilt next winter; some of the stone and cement being already on the ground. The lock labourers' house is in a bad condition, and will in all probability have to be pulled down, and a new house built, as it is built on sills which have completely gone, and the old log house will not bear raising up again.

BEVERIDGE'S BAY LOCKS.

Sundry small repairs were made to the station and embankments. A roadway was built out to the long dam; the right of way having been purchased from a Mr. McLean some years ago. A well is required at this station, and a contract has been made with a well sinker to drill one this summer.

PERTH.

The old planking was taken off the face of the basin wharfs, and new cedar plank substituted therefor. The wharfs themselves had two new rounds of timber put on, and the planking was renewed where necessary. The iron swing bridges were overhauled, and the tension cables repaired, and the turntables and swinging gear put in order. The culverts on the tow path road were repaired, and the road repaired in places.

OLIVER'S FERRY BRIDGE.

The whole bridge was replanked by the bridge tender, and some painting has been ordered to be done to the steel superstructure.

THE 'NARROWS' LOCK.

Some stone was placed on the slopes of the long dam, and the roadway on top of it was raised and graded with gravel. A new woodshed was built for the lockmasters's house, in place of the old one which nad fallen into decay; the work being partially done by the lockmaster and lock labourer.

NEWBORO LOCK.

Small repairs were made to the station in general. A new set of stoplogs were made and put into the canal reservoir dam at the outlet of Wolf Lake, which dam had hitherto been under the charge of the lockmaster here.

It might be as well to state here, that this dam had not been used for a number of years, as there was, until last year, a private mill-dam below it, which was maintained by the owner to supply his mills with water at Westport; and the effect of his keeping the stoplogs in his dam, was to back the water up on our dam, and consequently in the lake, so that it was useless for us to keep stoplogs in our dam; and in fact, the storage of water for the canal was effected just as well by this private dam whilst it was maintained, as by our own dam; so in consequence our stoplogs for some years were not put in. However the mill dam having become useless to hold water, and the owner having stated that he did not intend to rebuild it; made it necessary for us to hold up the water in Wolfe Lake, in order to supply the canal levels descending to Kingston, in dry seasons; so, as above stated, a set of stoplogs were made and put in and will be continually kept in until after navigation closes each year, when they will be taken out, and the lake allowed to fall low to make room for the freshet in the ensuing spring.

As this dam is some miles away from Newboro' lock, which renders it impossible for the lockmaster to look after it properly, and as more than one attempt has been made to destroy it by unknown persons, I, with your approval, placed a man in charge, who lives on the spot, and who can regulate the water as required, and also protect the dam, should attempts be made again to destroy it.

CHAFFEY'S LOCK.

The By Wash bridge was rebuilt, and also the approaches to the swing bridge across the lock. The upper wing walls of the lock are in bad shape, and arrangements have been made to take them down and rebuild them next winter. Sundry other small repairs were made to the station in general.

DAVIS'S LOCK.

One new pair ot swing beams were put on the lock gates, and six new chain blocks. Six new stoplogs were furnished for the waste weir. The lock labourer's house was repaired and reshingled, and small repairs made to the station in general.

JONES'S FALLS LOCKS.

The approaches to the swing bridge across the middle lock, were rebuilt. Two pairs of the high lock gates were strengthened by heavy timbers being bolted to the frame rails. These gates are the largest on the canal, and when the locks are full, hold back over 22 feet of water. A fence was built, as well as a small stone wall along the side of the road past the locks. This was done to keep cattle from straying onto, and destroying the lock slopes and flats, which, now that this fence is there, are kept nicely mown and tidy.

This lock station, which is on account of its natural beauty, a favourite summer resort, is now in first-class order, and a credit to all concerned. Morton Dam, situated three miles from Jones's Falls, and which is under the charge of the lockmaster of that place, is in good order.

BRASS'S POINT BRIDGE.

Sundry small repairs to the planking were made by the bridge tender. This coming winter, the whole bridge, with the exception of the swing span, which was rebuilt last year, will be taken down and rebuilt in steel and iron, with half the number of spans there are at present.

UPPER BREWER'S MILLS LOCKS.

One pair of lock gates were renewed, also 8 chain blocks, and repairs were made to the sluice racks on the lower gates. Sundry small repairs were made to the station in general.

LOWER BREWER'S MILLS LOCK.

Some gravel was placed on the dam and embankments, and sundry small repairs made to the station in general.

KINGSTON MILLS LOCKS.

One pair of lock gates was renewed. The stone waste weir was taken down and rebuilt, and now nearly all the leakage that existed through the old walls is staunched. Some new chain blocks were framed and placed on the locks. Two hundred and fifty cubic yards of stone were quarried and placed on the face of the long embankments. The station was grouted with cement, and sundry small repairs made.

The lock house is in bad condition, and an estimate will be made and submitted to you for your approval, of the cost of raising and repairing the same. However, as this house has been added to at various times, it will be a somewhat costly operation to raise it, and I think that the cheapest thing to do, is to build a small new frame house, and pull down the old one. This however will be the subject of a separate report to you later on, for your decision.

GENERAL.

The pointing and grouting of the lock masonry was done as usual, this spring, by our lockmen, the cement for which, as well as that used on the more extensive repairs, was purchased under contract from the Ottawa Fireproof Supply Co.; the brand of cement used being 'Gibraltar'. We purchased 1,500 barrles of this cement, which gave good satisfaction although a silica cement.

The painting of lock gates, bridges, houses, &c., was done by the lockmen, the paint therefor having been supplied under contract with Mr. W. G. Charleson of Ottawa, who supplied about 3,000 lbs. of this material.

The Douglas fir dimension timber required for new lock gates, &c., was furnished under contract by Messrs. Cameron & Co. of Ottawa, and a contract for smaller hemlock timber was also awarded to Mr. T. M. Woodburn of Ottawa.

DREDGING PLANT.

The dredge *Rideau* was employed last season in dredging the channel from Birmingham's Landing towards Upper Brewer's locks. She has made good progress; but will not complete the cut this season. A new boiler was purchased from, and placed in the dredge, by Messrs. Selby & Youlden of Kingston, and gives good satisfaction, having a working pressure of 125 lbs. of steam, which is easily maintained. The dredge is now in every respect equal to new. The tug *Shanly* was caught in the ice last winter, and compelled to winter at Smith's Falls. Small repairs were made to her at that place; but she is now so old, and her frames and boiler are in such a condition as to make it hardly worth while to spend much money on large repairs. She, will however, last one more year when she will be unserviceable; having been then 16 years in commission, and on account of her heavy draught, she has been subjected to very much harder wear and tear in the shallow rock cuttings on the canal, than she would have been called upon to undergo, had she been of the required draught for this canal.

A new flat scow was built last summer at Smith's Falls, which is most useful for the tug to deliver stores, derricks, &c., with, along the canal. The coal scow is in fair order; but our dump scows are worn out; and when scows are required again for the dredge, new ones must be built.

I append hereto, a table showing the highest and lowest water during each month, at Ottawa and Kingston Mills lock stations, during the last fiscal year.

I have the honour to be, sir,
Your obedient servant,

ARTHUR T. PHILLIPS, M.C. Soc. C.E.
Superintending Engineer.

Collingwood Schreiber, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Department of Railways and Canals.

RIDEAU CANAL.

TABLE showing monthly the Highest and Lowest water on the Lower Mitre Sills of Locks Nos. 1 and 47 at Ottawa and Kingston Mills respectively, from July 1, 1901, to June 30, 1902.

OTTAWA, LOCK NO. 1.				KINGSTON MILLS, LOCK NO. 47.			
Highest.		Lowest.		Highest.		Lowest.	
	Ft. In.		Ft. In.		Ft. In.		Ft. In.
July 1	12 2	July 28 and 29	8 3	July 1-10, 24-31	7 11	July 11 to 23	7 10
Aug. 1 and 2	8 8	Aug. 31	7 1	Aug. 1	7 11	Aug. 27 to 31	7 6
Sept. 4	7 5	Sept. 30	5 4	Sept. 1 to 4	7 5	Sept. 25 to 30	7 0
Oct. 31	7 0	Oct. 1	5 7	Oct. 1 to 4	7 0	Oct. 28 to 31	6 8
Nov. 24 to 30	7 5	Nov. 1	7 0	Nov. 1 to 14	6 8	Nov. 22 to 30	6 6
Dec. 18 to 31	10 4	Dec. 1	7 4	Dec. 1	6 6	Dec. 11 to 19	6 0
Jan. 1	10 4	Jan. 13 to 31	10 2	Jan. 16 to 31	6 4	Jan. 1 and 2	6 2
Feb. 1 to 5	10 2	Feb. 6 to 28	10 1	Feb. 1 to 10	6 4	Feb. 25 to 28	6 2
March 31	17 0	March 1	10 1	March 31	7 6	March 1	6 2
April 5 and 6	17 10	April 22 and 24	16 4	April 5 to 20	7 7	April 20 to 30	7 6
May 6 to 11	18 2	May 24 to 26	16 0	May 1-2, 29 to 31	7 6	May 6 to 19	7 4
June 4 to 9	16 8	June 30	14 4	June 15 to 30	7 8	June 1 to 5	7 6

ARTHUR T. PHILLIPS,
Superintending Engineer.

RIDEAU CANAL OFFICE,
OTTAWA, July 15, 1902.

ST. LAWRENCE DISTRICT.

SUPERINTENDING ENGINEER'S OFFICE,
CORNWALL, July 1, 1902.

SIR,—I beg to submit my annual report upon works of construction and survey, in connection with the enlargement of the St. Lawrence canals, for the year ending June 30, 1902.

CORNWALL CANAL.

(Opened for traffic, 1843.)

This canal was originally designed and constructed to allow vessels of not over nine feet draught to surmount the Long Sault rapids, extending from Cornwall to Dickenson's Landing, a distance of 11¼ miles, with a rise of forty-eight feet, originally made in six locks, but since reduced to five.

The canal is situated on the north side of the St. Lawrence river on ground sloping rapidly towards the river, and generally about thirty feet above it. The high embankments thus rendered necessary when not perfectly constructed, or when resting on treacherous foundations, which are common along this section of the river, have given rise to frequent landslides, accompanied by subsidence, entailing, as in 1888, very serious consequences.

In order to make the St. Lawrence navigable by vessels of the same class that pass through the Welland canal, and to carry out the general scheme of enlargement adopted by the government, work was commenced on the Cornwall canal division in 1876.

This work consisted in deepening, widening and straightening the original channel, strengthening and protecting the embankments, and in building enlarged locks 270 feet long by 45 feet wide, with not less than 14 feet of water on the mitre-sill, when the river is at its lowest stage, supply weirs, bridges, &c., also in addition to the above, and not included in the original contracts, the repair or renewal of the foundations and general restoration of the damaged masonry of the old locks 15, 16, 17, 18, 19 and 20, and the adaptation of the basin between old locks 16 and 17 to the purpose of a dry dock. Also dams, weirs and the guard gates, and automatic dam above lock 20, rendered necessary by the adoption of the Sheik's Island channel, and the masonry superstructure with ice-breaker on the old pier at the upper entrance.

The Sheik's Island channel does away with the imperfectly constructed embankments west of Milleroches, embraced in contracts Nos. 6 and 7 and parts of 5 and 8, which were abandoned when the decision to construct the channel had been arrived at. This diversion from the line of the old canal does away with three and a-half miles of very tortuous canal navigation, unfit for the class of vessels for which the enlarged canal system was intended and substitutes two and three-quarter miles of what can be classed as lake navigation, thus dividing the canal into two sections, the lower or eastern section six miles long, upper or western section two and a quarter miles, with two and three-quarter miles of lake navigation between, and saving about half a mile in distance.

The guard gates and automatic dam at lock 20 were constructed to protect the lower reaches from the large body of water impounded by the construction of the Sheik's Island dams, in case of accident to the locks or other structures.

For the purpose of construction, the canal was divided into nine sections, commencing with No. 1 at the lower or eastern entrance. The work of enlargement was commenced on this section in 1876 and was finished in 1882, except some work on old lock 17 and the weir and headrace to the mills, which were afterwards completed under the contract for section No. 2.

The next section to be let was No. 10 to Messrs. Jocks, Delorimier & Broder, who commenced work in 1884, and, with the exception of the upper entrance, completed it in 1895.

LIST OF CONTRACTORS.

Locality.	Section.	Contractors.	Date of Contract.
Cornwall	2	Wm. Davis & Sons	Nov. 5, 1888.
Lock No. 19	3	"	"
Maple Grove	4	"	"
Sheik's Island Dams	5, 6, 7 & 8	"	June 19, 1893.
Milleroches	5	The Gilbert Blasting and Dredging Co.	Nov. 2, 1888.
Moulinette	6	" "	"
Sand Bridge	7	" "	"
Long Sault	8	" "	"
Dickenson's Landing	10	Jocks, Delorimier & Broder	April 7, 1884.
Upper Entrance	10	Weddell & McAuliffe	Sept. 28, 1899.
Strengthening bank east of Pitt Street, Cornwall	1	J. J. Fallon	Feb. 8, 1902.
Cornwall Canal	1 to 10	Michael P. Davis	May 20, 1902.

NOTE.—Section No. 8 adjoins Section No. 10.

Thr work to complete the upper entrance was let to Messrs. Weddell & McAuliffe under contract entered into on September 28, 1899, to be completed by November 13, 1900.

It consists in the extension, straightening and widening of the channel on the north or landward side of the present entrance, from deep water which commences 900 feet west of the upper gates of guard lock No. 21 and extends to a point about 1,100 feet west of the lighthouse on the south entrance pier, a distance of about 3,500 feet.

Excavation above water by means of steam shovel which was in operation in June, 1901, was completed August 13, 1901.

Dredging operations were resumed November 20, 1901, and stopped for winter months December 21, 1901, resumed March 25, 1902, and completed on May 3.

Stone protection to slopes and preparing seat for the same which was in progress in June, 1901, was continued up to November 4, 1901, resumed April 3, 1902, and completed on June 5, 1902.

The sodding and soiling of slopes was commenced on August 1, 1901, continued until October 31, resumed on May 6, 1902, and completed on June 5, 1902.

This contract was wholly completed on June 5, 1902, and the final estimate is now being prepared.

In connection with the additional water power granted at lock 18 to the Paper Mill Company, attention is again directed to the necessity for rebuilding and enlarging the regulating weir at old lock 17.

On February 8, 1902, a contract was entered into with Mr. J. J. Fallon for widening and strengthening the north bank east of Pitt St., at Cornwall. This consists in the widening of the north bank of the canal and the building of a revetment wall for a distance of 1,000 feet from the east end of the present steamboat wharf at foot of Pitt St.

Two hundred and twenty lineal feet of this wall is now completed, as also the stone filling in the rear of same.

Building operations are, however, now suspended until the canal is again unwatered ; in the meantime the contractor will get all the necessary stone quarried, dressed and delivered in order to resume building and complete the work as early as practicable in the spring of 1903.

On May 20, 1902, a contract was entered into with Mr. M. P. Davis for the mechanism for operating the locks, guard gates, weirs and bridges of the Cornwall canal, to be completed August 15, 1902.

This work is now in progress at lock No. 20.

FARRAN'S POINT CANAL.

(Opened for traffic, 1847.)

This canal is situated about five miles west of the village of Dickenson's Landing, the head of the Cornwall canal. It was built to overcome a short, swift rapid above the village of Farran's Point, and was about three-quarters of a mile long, with a lockage of $3\frac{1}{2}$ feet.

In the year 1847 the original canal for 9 feet navigation was opened for traffic. The present enlarged canal has been extended to Empey's Bay, thus increasing the length to $1\frac{1}{2}$ miles and the lockage to 4 feet.

The enlargement having been authorized, tenders were advertised for, and on June 1, 1897, a contract was entered into with the Canadian Construction Company to undertake the necessary work and to have it completed by January 31, 1899.

The time for completion has since been extended.

The works undertaken in connection with the enlargement consisted of forming a new eastern or lower entrance, north of the original, and free from the eddies produced by the above rapids.

The building of a 'Flotilla lock' 800 feet long and 50 feet wide, with 14 feet of water on sill at the lowest known stage of the river, and extending from deep water at its eastern entrance to a point about 200 feet west of the old lock, and nearly parallel to it on the north side, also of deepening and straightening the old channel to the head of the old canal and its extension through Point Avoyon to Empey's Bay, also the building of a road to replace a portion of the King's old highway occupied by the enlargement. It is intended to keep the old lock in repair so that it can be used in case of accident to the new lock.

The new lock was ready for traffic September 6, 1899, and has since been used by all deep draught vessels.

The work done during the past year was as follows :—

About 2,000 lineal feet of fence constructed along the south side of the King's highway was completed on September 3, 1901.

The forming of necessary ditches along north side of canal was completed August 14, 1901.

Dredging operations in progress June 30, 1901, were continued to December 3, resumed April 12, 1902, and are still in progress and nearing completion.

The forming and grading of embankment on south side of canal was completed on August 24, 1902.

The protection of slopes with broken stone was completed December 6, 1901.

Mooring posts have also been placed at old lock and on south bank.

The levelling up with quarry waste of the north pier at lower entrance to canal was completed on August 21, 1901.

Repairs to this pier on account of damage done by vessels was completed September 10, 1901.

The sodding of slopes in progress June 30, 1901, was completed August 29, 1901.

The small amount of work remaining to be done in connection with the enlargement of this canal consists mainly in the cleaning up of the bottom, which work is at present being carried on by means of one dredge and should be completed by September 1, 1902.

The old lift lock has undergone a thorough repair, including new upper gates, which work was required for the reason that the usual guard lock at the upper entrance was considered unnecessary in first construction.

WILLIAMSBURG CANALS.

RAPIDE PLAT CANAL.

(Opened for traffic 1847.)

The lower entrance of the Rapide Plat or Morrisburg canal is situated about $9\frac{1}{2}$ miles west of the Farran's Point canal. It was designed to overcome the rapids of Rapide Plat by a lock of $11\frac{1}{2}$ feet lift, and extends from the village of Morrisburg to Flagg's Bay, a distance of $3\frac{3}{4}$ miles.

The original canal intended for vessels of 9 feet draught was opened for traffic in 1847.

The work of enlarging for the 14 feet draught vessels was commenced in 1884, and consisted in the deepening and widening of the old channel, the building of a new lift and a guard lock of 270 feet by 45 feet, supply weirs, regulating weirs, &c., and the construction of a new road to replace the highway destroyed by the canal improvements.

The old lift lock was put in thorough repair, and the sill lowered so as to admit of 9 feet navigation through it at lowest water.

LIST OF CONTRACTORS.

Locality.	Section.	Contractors.	Date of Contract.
Morrisburg	1	Poupore & Fraser	Jan. 26, 1891.
Mariatown	2	Weddell Dredging Co	" 12, 1891.
New Road	3	Poupore & Fraser	" 26, 1891.
Flagg's Bay	4	William Broder	April 2, 1884.
Upper Entrance		P. H. Gilbert	" 17, 1901.

The work on all sections except at upper entrance has been completed and the final estimates forwarded to the department for approval.

Upper Entrance.—This work consists in the straightening, deepening and widening of the channel, the removal of the old north and south piers and the construction of a new and more extensive pier with stone superstructure and ice-breaker on the south side.

The contract for this work was awarded to Mr. P. H. Gilbert and was commenced on April 17, 1901.

The work done during the fiscal year is as follows:—

The cribwork for the new south pier in progress June 30, 1901, was completed on November 11, and stone filling in same on December 3, 1901.

The excavation above water consisting of the sloping of the north bank, and the forming of ditches was commenced on July 9, 1901, continued until November 15, resumed April 25, 1902, and completed on May 23, 1902.

Dredging operations in progress June 30, 1901, were carried on until December 4, resumed on April 18, 1902, and are still in progress.

The placing of stone protection on the north slope was completed on May 22, 1902.

The building of a fence along the north bank was commenced on May 16, 1902, is still in progress and nearing completion.

The sodding of the north slope was completed on May 8, 1902.

For the new ice-breaker and superstructure of the new south pier a quarry is now being opened at Waddington, New York, directly opposite the works.

It is expected that this contract will be completed next season.

GALOPS CANAL.

(Opened for traffic, 1847.)

Between the head of the Rapide Plat canal and the foot of the Galops, at the village of Iroquois, there is a four and a half mile stretch of river navigation. What is now known as the Galops canal was originally built as two separate canals, with a short stretch of river navigation between.

These were opened for 9-foot navigation in 1847, the lower or easterly section, called the Point Iroquois canal, commenced at the village of Iroquois and extended to Presqu'ile. It was three miles long, and had a lockage of 5 feet 7 inches, which overcame the rapid of Point aux Iroquois.

The upper or westerly section, known as the Galops canal, commenced at the village of Cardinal and extended up stream two miles to the head of the Galops rapids; it had a lockage of 6 feet 8 inches, and surmounted the Cardinal and Galops rapids, called by the early forwarders 'the Upper Galoo's or Chain of Rocks.'

About ten years after the completion of these canals, they were connected by an embankment, otherwise the 'Junction canal,' built in the river, and other improvements made increasing the total length of canal to seven and a half miles, and the lockage to 14 feet 10 inches, thus avoiding the rapid current of the short stretch of river navigation.

In 1888, Messrs. Murray & Cleveland entered into a contract with the government to enlarge the upper entrance; the work consisting of the building of a new lift lock in Round bay, connecting directly with the river immediately below the Galops rapids, and a new guard lock, each 270 feet long by 45 feet wide, and a supply weir. The removal of the old guard lock, and also the deepening, widening and straightening of the channel from the upper entrance past McLaughlin's Point to the new locks at Round bay, a distance of about one mile.

The lift lock at Cardinal is now cut off from the canal and connected directly with the river by means of a large opening which has been made through the old canal bank below, thus rendering free access from the river to the wharf at the foot of old lock 26 for the accommodation of the village of Cardinal.

The improvement of the channel at McLaughlin's Point by widening it towards he north, as authorized, was commenced with steam shovel in September, 1900. All the excavation east of nine mile road which could be done by means of a steam

shovel is now completed, and a dredge will commence work at once taking out the remainder of the excavation below the level of the water.

The excavation under water has been found to consist of rock, hard-pan and boulders, all of which will require blasting in advance of the steam shovel and dredge.

The progress of this work throughout has been most satisfactory, and will be completed this season.

The toll-house for collector at locks 27 and 28 has been completed, and the final estimate was prepared and forwarded to the department June 4, 1902.

The extension (280 feet) of the south-east pier below lock No. 28 is now completed to the level of high water and materially assists in rendering the entrance perfectly safe for downward bound vessels.

To complete this work a masonry wall four feet above normal level of water in the river will be constructed. This work, however, will not be attempted during the high water of the present season.

In the year 1897, the government advertised for tenders for the enlargement of the other portions of the canal, dividing it into two sections or contracts of about three miles each, Iroquois and Cardinal. Messrs. Larkin & Sangster obtained the first named, and Messrs. Wm. Davis & Sons the latter. In each case the work was to be completed by January 31, 1899, but the time for completion has since been extended.

The scheme for enlargement contemplated the raising of the level of the reach between Iroquois and Cardinal six feet, that is to the height of the lowest known level of the river at the head of the Galops rapid, and overcoming the whole rise with one lift lock at Iroquois.

IROQUOIS SECTION.

Work on the enlargement of this section was commenced in May, 1897. It consisted of excavating a new entrance channel, the building of two entrance piers, a 'Flotilla lock' 800 feet long by 50 feet wide, weirs, bridges, retaining walls, &c., and the straightening, deepening and widening of the canal for about 3 miles, also the reconstruction of the highway north of the old canal, &c.

The work of building the masonry foundation walls for the Iroquois Water Works, the renewal and repair of the government wharf at the village of Iroquois, and the widening and deepening of the government ditch on the north side of the canal have all been completed under this contract.

With the exception of a few scattered boulders in prism of canal, some fencing, and repairs to bank protection and the removal of a few points of rock at the lower entrance, which is now being done, the contract work on this section is practically completed.

Several leaks have occurred in the banks on this section during the past year, owing chiefly to the fact of the water in canal having been kept at an unnecessarily high stage and thus unduly taxing the banks before they had properly matured.

The frequent lowering of the water to enable the necessary repairs to be made has also proved detrimental to the slopes of banks in undermining the stone protection.

CARDINAL SECTION.

Commencing at the western end of the Iroquois section at Presqu'ile it extends west through the rear of the village of Cardinal to Gate's Point, the eastern end of the upper entrance contract, a distance of about three miles.

The work consists in the widening, deepening and straightening of the old canal at each end of the section and construction of an entirely new piece of canal through and on either side of the village of Cardinal, requiring the excavation of the prism, the building of banks and their protection, and the construction of cribwork and masonry revetments through the 'Deep Cut,' also the building of bridge piers and abutments, &c.

The chief feature is the 'Deep Cut,' in rear of the village of Cardinal, 5,900 feet long and 68 feet deep at the highest point, requiring the excavation of about 2,000,000 cubic yards of material.

Earth Excavation.—The total quantity of earth excavation on this section is about 2,600,000 cubic yards. Of this quantity there now remains to be done some sloping below the level of 43 at Fraser's Point and Gate's Point, and a general trimming up of the bottom of prism of canal, both east and west of 'Deep Cut.' Two dredges are now being employed at this work and have been throughout the year (with the exception of the winter season). There also remains to be done some trimming of slopes of 'Deep Cut' to receive pitched stone facing, which work is being carried on ahead of the builders.

Rock Excavation.—The total quantity of rock excavation on this section has proved to be about 19,000 cubic yards, of which about 10,000 cubic yards was contained in the rock 'in situ' in bottom of 'Deep Cut.' It is all completed except a small ledge discovered at east end of 'Deep Cut' on the north side which rises a few inches above bottom of canal.

The cribwork revetment which extends through a portion of the 'Deep Cut' was completed during the months of April and May last, and is now practically ready to receive the masonry revetment wall superstructure. The total length of this cribwork revetment is 5,358 lin. feet and contains about 317,000 cubic feet of timber, 293,000 lbs. of iron in bolts, and 45,000 cubic yards of stone filling both inside and in rear. Of the masonry revetment wall laid in Portland cement which rests on top of this cribwork there still remains to be built 325 lin. feet containing 550 cubic yards. This work wil' be done as soon as the stone filling behind cribwork is completed.

Embankments.—All embankments are now made to their required height and width, with the exception of that portion of the south bank east of the 'Deep Cut' across the old canal, which is being proceeded with as fast as possible, and is now nearing completion. A final trimming up of the embankments throughout the entire section, yet however remains to be done.

The work of protecting the slopes of the 'Deep Cut' by the placing on them of pitched stone facing has been diligently carried on throughout the year (with the exceptien of the winter months) and is now rapidly nearing completion. Five building derricks are continuously employed on this work, which build altogether about 3,000 cubic yards per month.

The total quantity of this pitched stone facing will be about 46,000 cubic yards, of which there now remains to be built only about 15,000 cubic yards. The face stone for this work is being delivered from the quarry at Milleroches, while the quarry waste on which the wall rests is being taken out of the quarry near the head of this canal.

The north slope at Fraser's Point and Gate's Point, the upper slopes along north side of 'Deep Cut,' and a portion of those on the south side, as well as the greater portion of the south bank of canal throughout the section, have been sodded during the year.

Attention is here directed to the fact that no vessel should be permitted to stop and land passengers or freight within the limits of the 'Deep Cut'. Access to the village of Cardinal by water would therefore be confined to vessels using the river, it is suggested that a convenient landing may be constructed at the western entrance at the intersection of the 'Deep Cut' with the old canal by substituting a cribwork revetment for the masonry slope walls required to protect the banks.

GALOPS RAPID IMPROVEMENT.

This work comprises the excavation of a straight channel 200 feet wide and 17 feet deep through the shoals of the rapid which are known by the following names, viz.:—Upper Bar, North and Caledonia shoals, Island shoal and Lower Bar. The whole of these shallow places are included in a distance of 3,300 feet.

The work is subaqueous and consists in blasting and dredging the rock in the rapid·

The work as originally designed for the 200-foot channel was finished in November, 1888, but in view of the apparent permanent lowering of the water surface of the River St. Lawrence, and for the purpose of making a satisfactory test and survey of its bottom, and at the same time to be prepared for the removal of any material above the original contract grade, an agreement was entered into in the year 1897 with the Gilbert Brothers Engineering Company, Limited, to perform the necessary work. Operations were commenced the same year. In the year 1898 it was decided to widen the entrance to the existing channel south or towards Adam's Island with a view to eventually increase the width of the channel as originally excavated to 300 feet.

The plant employed consists of a dredge, drill scow, tugs, scows, &c., all adapted to the special work in hand.

Dredging operations were carried on by dredge *Iroquois* widening channel through north shoal and removing the north point of Island shoal up to October 2, 1901, when the dredge was laid up for the season.

The soundings taken after dredging showed the required depth of water in these places.

As there was no appropriation for continuing this work in 1901 and 1902 operations were not resumed this season and the plant has accordingly remained idle, but is maintained in good working order.

The drill boat was engaged until November 4, 1901, in drilling and blasting on Island shoal within the limits of the 200-foot channel to complete this portion of the work. She was then removed to Upper Bar where some high points previously discovered were drilled and blasted.

On November 18 all work was suspended and the plant laid up for the season at the head of Galops canal.

To complete the 200-foot channel and render it safe for 14-foot navigation it is absolutely necessary that the removal of the rock drilled and blasted in 1901 should be completed, otherwise propellers and other passenger vessels will continue to use it in order to save the time in locking at lock 28, and are liable to meet with serious accident

NORTH CHANNEL.

This channel commences about one mile west of the upper entrance to the Galops canal and extends in a straight line to deep water off Chimney Point, a distance of $2\frac{1}{3}$ miles.

It was constructed to avoid the sinuous natural channel passing through American waters, which is about three-quarters of a mile longer and could not be navigated with safety by the class of vessels for which the present enlarged canals were designed.

The work consists in the excavation of a channel originally 200 feet wide, which was subsequently increased to 300 feet through the bed of the St. Lawrence river and Drummond and Spencer Islands, the construction of embankments on either side of the channel, and of piers and of cribs at its eastern and western entrances.

The work having been authorized and tenders advertised for, it was let to Mr. M. A. Cleveland, May 14, 1897, the work to be finished on January 31, 1899.

The time has since been extended.

Dredging operations were carried on up to December 14, 1901, preparing seat for cribwork at lower entrance and at upper entrance for lighthouse cribs, and in the removal of unfinished parts of the channel through Drummond Island to secure a navigable width of 200 feet.

This work was resumed April 4, 1902, and continued to June 30.

The total quantity dredged during the year was 80,000 c. yds.

Rock Excavation.—The work of drilling and blasting the solid rock remaining in prism was continued up to November 25, 1901, when the drill scow was laid up for the season.

No drilling and blasting has been done on the work this season, the drill scow being employed at the upper entrance of the Galops canal.

The remainder of the rock excavation at the lower entrance to the north channel has been reserved to be used in the formation of the proposed dam across the "gut" (the international boundary) between Adam's and Galops island, the consent of the United States government having been obtained therefor.

Cribwork at Lower Entrance.—The cribwork marking the lower entrance to the north channel was completed in September last. The pier on the north side has been lighted and adapted for use of vessels when delayed by fog, which otherwise would be compelled to anchor or remain in the Galops canal.

Cribwork at upper entrance, consisting of a continuous breakwater on the north side of the channel from Spencer's Island to the lighthouse crib, is in progress with a view to completing the substructure before the fall navigation commences.

The extension of this breakwater is chiefly in the interest of the existing class of barges of 9-foot draught, which, since the north channel has been brought into general use, has been increased to 12 or 14 feet, where the freeboard permitted.

The sodding of the upper slopes through Drummond Island, which was commenced in August, 1901, was completed on May 9, 1902.

RIVER REACHES.

IMPROVEMENT OF CHANNEL, LAKE ST. FRANCIS.

From head of Soulanges Canal to foot of the Cornwall Canal, the length of the navigable channel is about 32¾ miles, of this distance 30 miles is through Lake St. Francis.

A channel has been buoyed between the above mentioned points, with a minimum depth of 16 feet at lowest water, and has been brought into general use.

St. Regis section, two and a half miles east of Cornwall, it is situated about midway between the foot of Cornwall Island and First Crab Island. The work here consists in the dredging of a channel 1,100 feet long and 300 feet wide through what is known as the St. Regis Shoals, and protecting it with dyke terminating with crib piers. This work was let to Messrs. Manning & Macdonald, May 24, 1898, to be completed November 30, 1898.

This work, however, was not completed until the fall of 1900, but has since been generally used by all classes of vessels, and is an important link in the 14-foot or deep water channel.

Hamilton Island section, between the seventh and eleventh mile east of the Cornwall Canal.

This work consists in the dredging of a channel through, or of widening and straightening it through the undermentioned shoals, and the construction of a lighthouse crib on the Middle Ground, viz.:—

The Clark's Island Shoal, 7½ miles west of Cornwall, the dredging at this point was substituted for that proposed to be done at the Horseback.

The Middle Ground, 10 miles east of Cornwall.

The Highlander Shoal, 10½ miles east of Cornwall.

A contract was entered into with Messrs. Manning & Macdonald, May 24, 1898, to be completed November 30, 1898.

The time stated for completion has necessarily been extended, but all the works embraced in Manning & Macdonald contract are now finished and the final estimates prepared.

ST. LAWRENCE RIVER AND CANALS.

During the past fiscal year the gas buoys, &c., marking all salient points in the deep water channel have been maintained and navigation has been uninterrupted since its inauguration in 1900.

The fact of the existence of a 14-foot navigation having been sufficiently tested by the Department of Canals, the charge of the buoy service including the Str. *Scout* has been transferred to the Department of Marine and Fisheries.

Surveys have been made of the isolated shoals in the channel between the Cornwall and the Farran's Point Canals.

Also in connection with the proposed dam at the Galops 'Guts', including the necessary observation stations enclosing portions of the river which may be affected by the closing of the Gut channel.

I have the honour, to be, Sir,
Your obedient servant,

TOM S. RUBIDGE,
Superintending Engineer.

Collingwood Schreiber, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Department of Railways and Canals, Ottawa, Ont.

ST. LAWRENCE CANALS.

OFFICE OF THE SUPERINTENDENT OF OPERATION,
MORRISBURG, ONT., June 30, 1902.

SIR,—I have the honour to report on the operation and maintenance of the canals under my charge for the fiscal year ending June 30, 1902.

These include the Cornwall, Williamsburg and Murray canals, covering a distance of about 29 miles of artificial waterway, overcoming the difficulties of the St. Lawrence river navigation between Prescott and Cornwall, with 11 locks and a total lift of about 78 feet; and affording direct ingress to the Bay of Quinte, at the west end, from Lake Ontario.

During the year 14-foot navigation was thoroughly tested and found to be an assured fact. In the season of 1901 the Northwestern Steamship Co. of Chicago put on their fleet of four steamers between that port and Europe, on more than one occasion loading even slightly over the 14-foot limit on the down trip. While this line of steamers was not financially successful to such an extent as to warrant a continuance this season, the manager assured me that it was in no sense attributable to the St. Lawrence canals. On the first day of October, with the water in the river not by any means at a high stage, the steamer *Arabian* passed down, using the Rapide Plat canal, with a draught of 14 feet and 4 inches. Early in the season of 1902, the Wolvin syndicate put on their fleet of boats operating between Duluth and Quebec, and have been making regular trips since. I understand that it is their intention to add to their fleet, confident from their experience in the first part of the season, that with Quebec as the eastern terminus of St. Lawrence navigation and the type of steam barge they employ, they have solved the problem of successful waterway traffic between the ocean and the Great Lakes.

Following close on the completion of the 14-foot channel have come vessels of larger size and deeper draught, so that, while the number of vessels passing through the canals is probably not so great as in former years, the season of 1901 saw an increase of about 30 per cent in the tolls collected at each of the four toll offices in this district. In the first part of the season of 1902 traffic has fallen off considerably owing to the coal strike.

At the beginning of the present season the operating staff were provided with official caps. The improvement has been favourably commented upon on all sides.

The appearance of the canals could be very materially improved by levelling off the banks, grading and terracing and sodding in places, and planting trees, &c. Some of this has been done in recent years, but much yet remains to be accomplished.

It is only a question of a very short time till a dredge will be required to keep the prism of these canals in proper shape. In places, quite a perceptible falling in is noticeable already; and there is cleaning up and trimming yet to be done sufficient to keep a dredge employed.

Appended is a statement of fines and damages incurred, and a record of the highest and lowest water levels.

CORNWALL CANAL.

The Cornwall canal was closed on November 30, 1901, and opened to navigation on May 1, 1902. During the full season navigation went on with but one interruption of three days, caused by the gates of lock 17 having been carried away on the last day of

July, by the steam barge *Hebron*. As soon as one pair of gates had been replaced water was let into that level of the canal and the old locks used.

A contract had been entered into with Mr. M. P. Davis for lighting the canal by electricity, and on October 24, 1901, the light was turned on for the first time. The canal is now as easy of navigation by night as by day, thereby enabling vessels to pass through with greater expedition than formerly. The light is being operated quite successfully, every failure of a lamp being promptly remedied by the staff of experts employed by Mr. Davis, and careful supervision is exercised to locate any defect. Power is supplied from the magnificent plant located at the lower end of Sheik's Island.

A contract has also been entered into with Mr. Davis to equip the gates and weirs with machinery for operating them by electricity. A test set of this machinery was installed on the lower gates of lock 20, in the latter part of March, 1902, and runs so well as to make it certain that the work, when completed, will be a decided improvement on the old method of opening and closing.

The canal was unwatered during the month of April, to allow of repairs. In that month the masonry of lock 21 was pointed ; the concrete apron below the weir at lock 19, repaired ; and a similar one built at lock 18, covering the full width of the weir and extending from the stone-apron to the end of the wing wall ; all broken valves repaired, or replaced by new ones ; a careful scrutiny made and everything that might prove to be an obstruction removed from the bottom and sides of the canal ; the stone protection to the banks repaired, where requiring it below water level ; the operating machinery on lock 15, which had been dismantled, replaced.

The gates damaged by the accident to lock 17 were repaired and now are spares, taking the place of the ones put in at lock 17, at the time of the accident ; a new pair of gates and hollow quoin coping stones, were put in at the west end of lock 21, after the close of navigation ; a floating crib built at the entrance to the weir at lock 17 ; the dry stone wall on the south side, between locks 15 and 17, taken out to below the water level and relaid ; the rip-rap repaired where requiring it ; watch-houses, store-houses, work-shops and collector's residence painted, and the work of painting other parts requiring it is still going on ; scow and gate pontoon caulked ; the telephone line transposed ; and all the present equipment of locks and weirs made uniform.

The apron at locks 18 and 19 became necessary owing to the scouring from the heavy flow of water required to supply power to the several mills drawing from the canal.

When the electric light line was put into operation it was found that the electrostatic induction rendered a conversation on the telephone line impossible, now that the line has been transposed it gives fairly good service.

John Gillie, lockmaster, at lock 18, was superannuated by Order in Council, dated February 12, 1902.

Daniel Gillespie, lockmaster, at lock 19, was superannuated by Order in Council, dated May 20, 1902.

WILLIAMSBURG CANALS.

The Williamsburg canals were closed and opened on the same dates as the Cornwall canal, except that the contractors at work on the different portions of these canals were allowed the use of the locks from the time the ice was off in the spring.

These canals were operated during the full season without any serious mishap, or interruption to navigation.

The level of the water in the Galops canal has not yet been brought to full height ; but construction work will soon be at such a stage as will permit of this being done.

The Rapide Plat canal was unwatered during the month of April, and during that time considerable work was done in repairing the stone protection to the banks. A piece of new rip-rap, with a somewhat larger size of stone than used formerly, was hand laid, on both sides of the canal in the village of Morrisburg. The slope of the bank was slightly flattened and a good trench bed was dug, leaving a berme of from five to eight

feet, and this berme covered on top with stone, closely laid. The rip-rap was carried up, two feet deep throughout. Considerable work was put in lifting boulders from the bottom of this canal, during the time the water was out and after. The lock walls and weir at lock 24 were pointed.

During the year a double foot bridge was put on the upper gates of locks 24 and 27. Closet conveniences were given at locks 24, 27 and Cardinal bridge. Another watch-house was provided at lock 27, one built for the Cardinal bridge and one watch-house at each lock, sheeted inside for winter use. During the construction work several houses were taken over by the department, three in Cardinal have been thoroughly overhauled and put in a good state of repair for use of the staff.

The location of the workshops was changed from Cardinal, on that part of the canal now closed off owing to the 'deep cut' having been put through, to Morrisburg, and the work of putting in proper foundations for the buildings and grading and draining the yard is in progress.

The Cardinal bridge was replanked and equipped with proper light, and automatic gates similar to those in use on the Soulanges Canal bridge ordered.

Painting is being done everywhere it is required.

W. I. Casselman, labourer, lock 23, was superannuated by Order in Council dated December 3, 1901.

MURRAY CANAL.

The Murray canal was closed on November 30, 1901, and opened on April 4, 1902.

During the season of navigation there was no interruption to navigation and no serious damages done.

Frequent disputes have arisen between vessel men and the officials of the Central Ontario Railway Co. as to priority of passage when they meet at the railway bridge. This point was definitely settled early in the season, since which time nothing more has been heard of the matter.

The banks of the canal were kept free from weeds and all the front and back ditches kept clean. To prevent the wearing away of the bank by cattle, two water-ways were constructed. A storehouse in which to keep the supplies was built at each bridge; watch-houses and bridges were painted, and material laid in for a landing wharf for collection of tolls, for repairs to bridge piers and for derrick. The work of building the wharf is under way.

W. A. STEWART,
Superintendent of Operation.

Collingwood Schreiber, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Department of Railways and Canals,
Ottawa, Ont.

SESSIONAL PAPER No. 20

STATEMENT of Fines and Damages in connection with the St. Lawrence Canals, during the Year ending June 30, 1902.

CORNWALL CANAL.

——	Date.	Name of Vessel.	Damage.	Fine.	Name of Owner.	Remarks.
			$ cts.	$ cts.		
Lock 21	July 14	Lake Michigan		20 00	R. & O. B. McKay	Paid.
" 17	" 31	Hebron	1,427 69		Jas. Hall	Unpaid.
" 18	Nov. 5	Hugona	75 00		Hugona S.S. Co	Paid.
" 21	" 8	Cuba	16 97		M. & C. Merchant S.S. Co., Ltd	"
" 15	" 12	Spartan	17 37		R. & O. Navigation Co., Ltd	"
Guard gates.	" 16	Liberty	8 00		Standard Oil Co	"
Lock 17	" 24	Huron	26 81		K. & M. Forwarding Co	"

WILLIAMSBURG CANALS.

Lock 22	July 10	J. P. Sheldon	71 30		Sincennes, McNaughton, Co., Ltd	Paid.
Lift lock.—	Nov. 16	Liberty	5 00		Standard Oil Co	"

MURRAY CANAL.

Bridge	Sept. —	Caspian	8 00		Bay of Quinte Nav. Co	Unpaid.

W. A. STEWART,
Superintendent of Operation.

MORRISBURG, Ont., June 30. 1902.

RECORD of Highest and Lowest Levels of Water on the St. Lawrence Canals for the Year ending June 30, 1902.

MONTH.	CORNWALL CANAL.				WILLIAMSBURG CANALS.										MURRAY CANAL.	
	Lock 15.		Lock 21.		Lock 22.		Lock 23.		Lock 24.		Lock 25.		Lock 27.			
	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.	Highest	Lowest.
	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.
1901.																
July	10 3	9 8	10 1	9 5	9 4	8 5	9 1	8 1	9 6	8 2	11 10	10 7	9 9	8 9	13 5	12 10
August	10 0	9 6	9 9	9 2	9 0	8 5	8 7	7 10	8 8	8 0	11 3	10 4	9 4	8 9	13 0	12 7
September	10 0	9 3	9 6	8 11	9 0	8 0	8 7	7 4	8 7	7 5	10 9	9 7	9 9	8 5	12 9	12 3
October	9 7	9 1	9 4	8 4	8 6	7 6	8 3	6 11	8 5	7 1	10 11	9 1	8 8	7 0	12 2	11 8
November	9 2	8 6	8 10	7 8	7 6	6 10	7 3	5 6	7 7	5 8	10 6	7 7	8 8	6 7	11 9	11 3
December	9 11	8 3	9 6	8 0	9 0	7 2	7 9	6 4	8 0	6 2	10 5	8 3	10 0	7 1	12 0	11 4
1902.																
January	18 5	9 7	9 8	6 5	9 11	7 5	8 1	6 2	7 5	5 8	10 0	7 7	8 8	7 3	12 0	11 8
February	14 10	12 10	9 10	5 1	10 3	7 10	8 4	5 6	7 0	4 8	9 6	6 3	7 6	6 4	12 0	11 7
March	17 6	10 2	9 11	8 2	9 2	8 0	8 8	5 11	8 8	6 0	11 2	7 6	9 1	7 1	12 9	11 10
April	10 5	9 6	10 2	8 4	10 0	7 8	9 5	6 10	10 1	7 0	12 3	9 0	10 0	8 2	13 1	12 4
May	10 1	9 5	10 0	9 4	9 4	8 7	9 1	8 2	9 7	8 4	11 11	10 9	10 5	8 7	13 1	12 7
June	16 1	9 8	10 2	9 6	9 9	8 9	9 2	8 2	9 7	8 3	12 0	10 7	10 3	8 9	13 1	12 6

W. A. STEWART,
Superintendent of Operation.

MORRISBURG, ONT., June 30, 1902.

SESSIONAL PAPER No. 20

WELLAND CANAL.

St. Catharines, Ont., July 1, 1902.

Sir,—I have the honour to report upon the operation and maintenance of the Welland Canal and its branches for the fiscal year ending June 30, 1902.

During the past year considerable progress has been made in the direction of improving the canal for navigation purposes. The old Townsend valves in the lock gates have always been a source of great annoyance and expense and are being replaced with a simple butterfly valve, which gives good satisfaction. The old valves were opened by means of small turbine wheels, requiring 12 wheels to each lock. These are being done away with altogether and are replaced by a simple crab, which is much quicker acting and which will greatly reduce the cost of maintenance. The old hanging gear of the gates is being changed and replaced with a much simpler and better arrangement.

The sills of the entrance lock at Port Colborne, although designed to have at least 14 feet of water upon them at all times, have been causing great delay to navigation for several years on account of the level of Lake Erie falling below what was anticipated, and last winter these sills were lowered three feet. This was done by day labour at a net cost of about $15,000.

The excavation of the summit level, between Port Colborne and Thorold at the time of enlargement, was not taken out deep enough to meet the present level of Lake Erie, and two contracts have been let to remedy this defect. Messrs. Hogan & Macdonell are deepening the rock cut between Port Colborne and Humberstone and expect to complete this by the opening of navigation next spring. Messrs. Magann & Phin are deepening the earth sections below Welland and are making good progress.

The water was let out of Lock 24 level before the opening of navigation last spring to allow Mr. Joseph Battle to complete his contract of rebuilding, in concrete, parts of the retaining walls above the head of the lock.

Mr. John Riley and Messrs. J. & T. Riley have completed their contracts for the east and west docking at Port Dalhousie, and there now is a concrete superstructure on all the pier work at the Port Dalhousie entrance.

The dam and bridge across the Grand River at Dunnville is being rebuilt under contract by Messrs. Hutchinson, Lattimore & Lalor. Fair progress is now being made and it is hoped to complete the work before the high water sets in in the fall.

The ditch along the south side of the feeder from Brown's tap westward has been enlarged and deepened, thus adding much to its efficiency.

The pile fender work of several bridges has been renewed.

The 24-inch tile drain, which was laid on the west side of the canal at Port Colborne to replace an open ditch, has proved eminently satisfactory, and the material is now on the ground to treat the ditch on the east side in a similar manner.

The usual repairs at locks, weirs, bridges, &c., have been made.

A large quantity of rip-rap has been placed along the canal between Thorold and Port Dalhousie, as the banks were washing out badly.

Nearly all the bridges along the canal have been repainted.

The canal was closed December 15, 1901, and opened for navigation April 20, 1902.

The operation of the canal was interrupted once during the season of navigation, the steamer *Prince*, bound up on September 14, 1901, carrying away the upper gates of Lock No. 13. Spare gates were stepped and navigation resumed twenty hours after the accident.

The Dominion police force was withdrawn from the canal in February, 1902.

The greatest impediments to navigation now existing in the canal are the centre piers of the swing bridges crossing the canal on the summit level and of the Grand Trunk Railway bridge, between Locks 24 and 25 at Thorold. These piers divide the canal into two channel ways, each only 44 feet in width, or one foot less than the width of the locks ; and, with one exception, these bridges are all located on sharp curves,

thus making the passage extremely difficult and dangerous to navigation. An appropriation is now available to remove these obstructions between Port Colborne and Welland.

The sill of the guard lock, No. 26, above Thorold, is too high and has caused several delays to navigation during the periods of low water and should be lowered.

The foundation of Lock No. 2 at Port Dalhousie was, by some mistake during construction, placed one foot too high, and as the level of the large basin below could not be raised to overcome this, a masonry wall was built between Locks 1 and 2, dividing the basin into two parts, the water on the new canal side of the wall being kept 12 to 18 inches higher than upon the other side. This wall was built upon piles driven into muck and silt which is gradually being washed out and allows the water to pass more or less freely under the wall. In case of a break in Lock No. 1, this wall would surely be carried away and navigation through the canal would be limited to less than 13 feet. The sills of Lock No. 2 can, I think, be lowered without much trouble, and when this is done, the reach between Locks 1 and 2 could be lowered to its original level and the necessity for the dividing wall done away with. I would recommend that these sills be lowered next winter.

OLD CANAL.

The old canal has been very much neglected of late years and is in a bad state of repair. A large amount of work has been done in the past few months to put it into shape, however. The timber coping on the locks had all rotted away and is being replaced with a concrete coping, 3 feet in width at the bottom and 2 feet at the top. This makes a neat and substantial finish.

The banks have been raised and strengthened in places and a large quantity of rip-rap placed to protect them from wash.

The bridges and lock gates are being painted and generally such work is being done as will take away the dilapidated appearance which it now has.

The weir and lock foundations are in several cases in a very dangerous condition and it is proposed next spring to draw the water off for ten days or two weeks and thoroughly repair them.

The water was only drawn off for two days last spring as it was a very busy season with the manufacturers and it was considered that the heavy repairs could safely be held over for another year.

Several dangerous leaks have developed in various parts of the banks during the year but they have been noticed in time, and have been repaired without shutting down the water powers along the canal.

The following employees have been superannuated during the year: Terrance Johnson, Tim. Sullivan, C. W. Bradley, Alex. Hannah, Chas. Hannah and Robert Gibson.

The following superannuated employees died during the year: Alex. Winslow, died at Cleveland on December 25, 1901, age 78; James Waters, died October 23, 1901, age 87.

Attached is a statement of fines collected for breaches of canal rules and regulations. Also a statement of damages to canal property and amounts collected for the same and to whom paid. Also a statement shewing the highest and lowest recorded depths of water on the mitre sills of the locks at Port Dalhousie and Port Colborne for each month of the year.

I have the honour to be, sir,
Your obedient servant,
J. L. WELLER,
Superintending Engineer.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Dept. Railways and Canals,
Ottawa, Ont.

WELLAND CANAL.

STATEMENT showing the highest and lowest depths of water on the Lower Mitre Sill, Lock No. 1, New Welland Canal, Port Dalhousie, for the fiscal year ending June 30, 1902.

Months.	Lower Sill.				Months.	Lower Sill.			
	Highest.		Lowest.			Highest.		Lowest.	
1901.	Ft.	In.	Ft.	In.	1902.	Ft.	In.	Ft.	In.
July	16	3	15	7	January	14	6	14	2
August	15	8	15	2	February	14	5	14	1
September	15	3	14	9	March	15	5	14	3
October	14	11	14	4	April	15	6	15	0
November	14	4	13	11	May	15	7	14	5
December	14	9	13	11	June	15	9	15	3

STATEMENT showing the highest and lowest depths of water on the Upper Mitre Sill, Lock No. 26, New Welland Canal, Port Colborne, for the fiscal year ending June 30, 1902.

Months.	Upper Sill.				Months.	Upper Sill.			
	Highest.		Lowest.			Highest.		Lowest.	
1902.	Ft.	In.	Ft.	In.	1902.	Ft.	In.	Ft.	In.
July	14	10	13	5	January	14	10	12	7
August	14	7	13	7	February	14	4	12	2
September	15	6	13	4	March	14	9	12	2
October	14	8	13	2	April	15	8	13	3
November	14	1	12	3	May	14	10	13	6
December	15	1	13	2	June	16	0	12	2

STATEMENT of damages to Welland Canal property during the fiscal year ending June 30, 1902, and amount paid and unpaid on account of said damages.

Date of Damage.	Name of Vessel.	Amount of Damages.		Date paid.	Where Paid.
		Paid.	Unpaid.		Collector's Office.
1899.		$ cts.	$ cts.	1901.	
June 1..	Str. St. Andrew	29 31	.....	Aug. 23 ...	Port Dalhousie.
1901.				1902.	
Sept. 10..	Str. Hartford.	.....	145 48	. . .	
" 14..	" F. H. Prince..	2,336 49	....	Sept. 17...	Port Dalhousie.
Oct. 21..	" Avon	25 00	....	Oct. 23....	"
1902.					
May 5..	Str. J. J. Hill	30 00	.. . ...	May 8 ...	St. Catharines.
		2,420 80	145 48		

STATEMENT of fines collected from vessels contravening Canal Rules and Regulations, and lock tenders for dereliction of duties, for the fiscal year ending June 30, 1902.

Date of Fine.	Name of Vessel.	Amount of Fine.		Date paid.	Where Paid.
		Paid.	Unpaid.		Collector's Office.
1901.		$ cts.	$ cts.	1901.	
Oct. 12..	Str. Monteagle..	15 00	.....	Nov. 1....	Port Dalhousie.
	Locktenders.				
Oct. 24 .	James Ellis.....	10 00	....	Oct. 24....	Port Dalhousie.
		25 00	.....		

PORT COLBORNE ENTRANCE IMPROVEMENT.

PORT COLBORNE, ONT., August 11, 1902.

SIR,—I have the honour to submit my annual report on the improvement of the upper entrance of the Welland Canal at Port Colborne, contract number 13,807, MM. M. J. Hogan and Allan R. Macdonell, contractors.

During the year ten cribs were placed in position in the basin and sixteen in the extensions of the west pier.

At present twenty cribs are in position in the basin and twenty-one in the extensions of the west pier in the lake.

Sixteen cribs are framed but cannot be placed until stone for filling is obtained.

Eight hundred and thirty concrete blocks have been used in the work and two hundred and ninety-nine remain on hand for future use.

Four thousand two hundred and fifty cubic yards of mass concrete have been placed on top of the concrete blocks in the dock walls.

Fifty-seven thousand cubic yards of clay and sand have been dredged in cleaning up the bottom of the basin and entrance to a depth of sixteen feet of water and in excavating for the dock walls in the basin.

In making the excavation to a depth of twentyt-wo feet of water from deep water in the lake to the extensions of the west pier, twenty-two thousand cubic yards of clay and forty-eight thousand cubic yards of solid rock have been removed to date and thirty-one thousand cubic yards of solid rock have been drilled and blasted ready for dredging.

The stone filling in and on top of the cribs, as well as that required between the lines of cribwork in the extensions of the west pier, is to be obtained from the excavation. The time required for the completion of the piers depends on the progress of the submarine drilling and blasting.

The contractors had three drill boats on the work from July 1 to September 20, 1901. From the latter date until June 1, 1902, the drill boats were employed elsewhere. Since June 1 the contractors have had but two drill boats on this work. A steel hull for a new drill boat was launched a few weeks ago but the boat will not be ready for work until late in fall. At the present rate of progress the drilling and blasting will not be completed before the summer of 1906. On this account, I have asked the contractors to arrange to work the drill boats during the winter months, if possible, so a quantity of stone will be available early in the spring. This will enable them either to complete pier 1, the other work on which is well advanced, or to sink the cribs required for pier 2.

The progress of the works embraced in this contract has been delayed by the diversion of men, plant and materials to the breakwater which is being built here by MM. Hogan and Macdonell for the Department of Public Works. It is an essential part of the whole plan of improvement and the protection it affords will enable our works to be carried on more expeditiously in future.

The cribs required for the dock wall on the east side of the basin south of the present elevator of the Grand Trunk Railway will not be put in place before next summer. I wish to recommend that the foundations of a number of these cribs be carried down to a depth of 22 feet of water, to provide at least one berth for large vessels at this point. Facilities will undoubtedly be required for handling coal, iron ore, &c., and for transferring from deep vessels to the tracks of the Welland branch of the Grand Trunk Railway. This is the most convenient point at which they can be provided.

I have the honour to be, sir,

Your obedient servant,

F. LAWLOR,

Engineer in charge.

COLLINGWOOD SCHREIBER, Esq., C.M.G.,
Deputy Minister and Chief Engineer,
Department of Railways and Canals,
Ottawa, Ontario.

ST. PETER'S CANAL.

St. Peter's, Cape Breton, Canal Office, June 30, 1902.

Sir,—I have the honour to submit my annual report on work performed on St. Peter's canal, under my charge, during the fiscal year ending June 30, 1902.

(1.) Completing 150 ft. of new work at north entrance of canal, on west side placing necessary mooring posts and fenders; this new work consists of 350 ft. in length and is very convenient for vessels hauling out of the way, and when a little dredging is done to remove a lump of some twenty or thirty feet, it will prove very beneficial to the general traffic.

(2.) Renewing sixty feet of wall at N. E. Jog 6 ft. high and cutting away timber that was projecting up, left there since the damming of canal for the purpose of putting in new lock gates and placing our new mooring posts.

(3.) Replacing toe roller and straightening out toe roller bar on high water gate east side.

As instructed I ordered twenty hanging fenders, but failed in getting them to have them hung before the end of fiscal year; they are very much needed and with your permission I will attend to them at once. the east side of canal requires a new set altogether, there is considerable of timber and labour required in placing those last mentioned, as everyone of them hangs from a resting pillow built with timber attached to the canal stone wall with drift split iron bolts.

The operation of canal is in good condition and the traffic in same is up to the general standard.

Navigation opened on St. Peter's canal on April 9, 1901, and closed January 29, 1902. During the fiscal year ending June 30, 1902, 1,874 steamers and vessels passed through St. Peter's canal.

There is one tidal lock and four pair of gates on St. Peter's canal.

I have the honour to be, Sir, your obedient servant,

JNO. H. DEVEREUX.

Collingwood Schriber, Esq., C.M.G.,
Chief Engineer and Deputy Minister,
Railways and Canals, Ottawa, Ont.

REPORT

OF THE

SECRETARY OF THE RAILWAY COMMITTEE

OF THE

PRIVY COUNCIL

THE RAILWAY COMMITTEE OF THE PRIVY COUNCIL.

The Honourable the Minister of Railways and Canals being the Chairman of the Railway Committee of the Privy Council, on which certain extensive duties are imposed by the Railway Act, 1888, and its amendments, it seems proper that a brief record should here be made of the matters submitted to the Committe, during the period from October 1, 1901, to October 1, 1902, and the decisions arrived at, they are as follows :—

1. Application of the Corporation of the city of Toronto for an order directing that gates and watchmen be placed at the crossing of Dunn avenue, by the Grand Trunk Railway, Toronto.—Granted.

2. Application of the Corporation of the city of Toronto for an order directing that gates and watchmen he placed at the crossing of Dowling avenue, by the Grand Trunk Railway, Toronto.—Granted.

3. Application of the Corporation of the city of St. Henri, *re* opening of Gareau, street across the tracks of the Grand Trunk Railway Company.—Under consideration.

4. Application of the Winnipeg street Railway Company for permission to cross, at rail level, the Canadian Pacific Railway at Main street and Higgins avenue, in the City of Winnipeg.—Under consideration.

5. Application of the Corporation of the City of Toronto for an order authorizing the construction and maintenance of a street by means of an overhead bridge, east of and immediately adjoining York street, across the tracks of the Grand Trunk and Canadian Pacific Railway Companies in the city of Toronto.—Under consideration.

6. Application of the Niagara, St. Catharines and Toronto Railway Company for permission to intersect and unite with the Wabash Company's line which the latter have leased from the Grand Trunk Railway Company.—Under consideration.

7. Application of the Canadian Pacific Railway Company for approval of plan and profile of proposed crossing of Main street and Maple street, in the city of Winnipeg. —Under consideration.

8. Application of the Canadian Pacific Railway Company for an order amending the order of December 16, 1893, so that the corporation of the city of Toronto shall hereafter bear and pay to the applicant half the cost of protection and half the cost heretofore borne by the applicant, at the crossings of Dufferin and Bathurst streets Toronto.—Under consideration.

9. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for permission to cross the Grand Trunk and Canada Southern Railways.—Granted.

10. Petition of the Corporation of the parish of St. Anselme, P.Q., for an order directing that a highway may be constructed across the track of the Quebec Central Railway, at rail level, as shown on the sketch accompanying the petition.—Granted.

11. Application of the Grand Trunk Railway Company for permission to construct a railway siding from the Belt Line Railway across the street running upon the west side of the Don Improvement in the city of Toronto, across the lands belonging to the city of Toronto on which certain city stables have been erected, and across Front street east into the lands occupied by the firm of John Taylor and Company, as shown on plan submitted.—Granted.

12. Application of the Municipal Corporation of the town of Lethbridge, in the district of Alberta, for permission to make, construct and maintain certain ditches and culverts on the right of way and under the tracks of the Canadian Pacific Railway Company, situate within the said municipality for use in connection with its municipal water supply.—Granted.

13. Application of the Canadian Pacific Railway Company for approval of certain highway diversions required in Manitoba, shown on plans submitted, such diversions having been rendered necessary by the construction of the Canadian Pacific Railway.—Approved.

14. Application of the Bruce Mines and Algoma Railway Company for permission to cross the Canadian Pacific Railway before the installation of interlocking appliances, up to and including the first day of September, 1902.—Granted.

15. Application of the Pontiac Pacific Junction Railway Company for approval of change in the location of the line of its railway between the 5th mile and the 8½ mile (Aylmer branch) shown on the plan, profile and book of reference submitted.—Approved.

16. Application of the Quebec Southern Railway Company for approval of a proposed crossing, at rail level, by its railway of the Central Vermont Railway at Iberville, P.Q. —Approved.

17. Application of the Grand Trunk Railway Company for permission to lay two sidings from its tracks across Wilmot and Joseph streets to the premises of the Kranz Tanning Company, in the town of Berlin, shown on plan and profile submitted.—Granted.

18. Application of the Pontiac Pacific Junction Railway Company for permission to use the crossing by its railway of the mill siding on the Aylmer branch of the Canadian Pacific Railway (now the Hull Eleetric Railway) before the installation of the interlocking appliances.—Granted.

19. Application of the Grand Trunk Railway Company for permission to construct a railway siding from the premises of the Park, Blackwell Company, Limited, across the Queen's Wharf road, Toronto, so as to connect with its tracks, as shown on plan submitted.—Granted.

20. Application of the Lake Champlain and St. Lawrence Junction Railway Company for approval of the change in, location of the line of its railway, situate in the parish of St. Siméon, county of Bagot, P.Q., shewn on the plan submitted.—Approved.

21. Application of the Schomberg and Aurora Railway Company for approval of change in the location of the line of its railway between Yonge street and Schomberg, in the township of King, county of York, Ontario, shewn on plan, profile and book of reference submitted.—Approved.

22. Application of the Canadian Pacific Railway Company for permission to construct a railway siding from its line across Eastern avenue, Toronto, to certain lands to be leased by the corporation of the city of Toronto to John Clancy, coal and wood merchant.—Granted.

23. Application of the Great Northern Railway Company for approval of the place and mode of crossings, at rail level, by its railway, of the Canadian Pacific Railway on St. Andrew street, in the city of Quebec, as shown on plan submitted.—Approved.

24. Application of the Canadian Pacific Railway Company for permission to place an additional track on Point Douglas avenue, in the city of Winnipeg, as shown on plan submitted.—Granted.

25. Application of the corporation of the city of Toronto for an order directing that a certain water main may be laid and maintained under the tracks of the Grand Trunk and Canadian Pacific Railway Companies, situate on Parliament street and to the south thereof in the city of Toronto, shown in plan submitted.—Granted.

26. Application of the Montreal Terminal Railway Company for an order sanctioning the building of a branch line of railway through the village of De Lorimier, in the Province of Quebec, and for approval of plan, profile and book of reference of the said branch line.—Granted.

27. Application of the Montreal Terminal Railway Company for permission to run along parts of Parthenais and Marie Anne streets in the municipality of De Lorimier, P.Q,—Granted.

28. Application of the Montreal Terminal Railway Company for an order sanctioning the building of a branch line of railway through the city of Montreal, and for approval of plan, profile and book of reference of the said branch line.—Granted.

29. Application of the Montreal Terminal Railway Company for permission to run along the following streets in the city of Montreal, viz.:—Moreau, Forsyth, Iberville, Amity, Parthenais, Marie Anne, Cadieux, Hotel de Ville, Craig and Vitre, as shown on plan and profile submitted.—Granted.

30. Application of the Grand Trunk Railway Company for permission to construct a railway siding across the Don Improvement road into the lands of James Purins in the city of Toronto, as shown on the plan submitted.—Granted.

31. Application of the Municipal Corporation of the township of Plummer for an order directing that a highway may be constructed across the track of the Soo Branch of the Canadian Pacific Railway between mile posts 45 and 46.—Granted.

32. Application of the Municipality of the townships of Hagarty, Richards, Sherwood, Burns and Jones in the county of Renfrew, Ontario, for an order compelling the Canada Atlantic Railway Company to open up and construct three highway crossings over its tracks between the 4th and 5th concessions of the township of Hagarty, as shewn on plans submitted.—Granted.

33. Application of the Canada Atlantic Railway Company for approval of plans and profiles of the portion of its line now constructed in the townships of Hagarty and Sherwood, in the county of Renfrew, Ontario, showing the crossings of all public highways in each of the said townships, at rail level, or otherwise.—Approved.

34. Application of the Canada Atlantic Railway Company for approval of plans and profiles of the portion of its railway now constructed in the township of Sherwood, in the county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

35. Application of the Canada Atlantic Railway Company, for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Fitzroy, in the county of Carleton, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

36. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Nepean in the county of Carleton, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

37. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Huntley, county of Carleton, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

38. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of March, county of Carleton, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

39. Application of the Canada Atlantic Railway Company, for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Hagarty, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level, or otherwise.—Approved.

40. Application of the Columbia and Kootenay Railway Company, for approval of change in the location of the line of its railway from a point marked 'A' to a point marked 'B' situated near Robson, in the province of British Columbia, shown on plan, profile and book of reference submitted.—Approved.

41. Application of the Cape Breton Railway Extension Company for approval of the plans and proposed site of a bridge to be built by that company across the River Inhabitants, at a point about one mile above McCarthy's Ferry, in the county of Richmond, Nova Scotia.—Approved, subject to the condition, that the said railway company shall forthwith enter an agreement with the Government of Canada, whereby the said company will bind itself, whenever called upon by the Department of Public Works of Canada, to immediately provide a draw in the said bridge.

42. Application of the Corporation of the city of Calgary for authority to build and maintain a subway, at its own expense, under the tracks of the Canadian Pacific Railway Company, at the place and in the manner indicated on the plan submitted, and for permission to use a right of way of not less thon sixty-six (66) feet in width to and from the said subway both northerly and southerly through the property of the Canadian Pacific Railway Company.—Granted.

43. Application of the Grand Trunk Railway Company for an order sanctioning the building of a branch line of railway from a point in the township of Thurlow on the line of its railway between Belleville and Peterborough to the mill and distillery of Mr. Henry Corby, at Corbyville, Ontario, and for approval of plan, profile and book of reference of the said branch line.—Granted.

44. Application of the Ontario and Quebec Railway Company (C.P.R.) for an order sanctioning the building of a branch line of railway from a point on its railway near the freight shed of the company on the east side of Herbert street in the town of Smith's-Falls, Ontario, thence along William street to Bay street, thence along Bay street and Centre street in the said town, and for approval of plan, profile and book of reference of said branch line.—Order approving of the said branch line, and directing that it shall only be used for shunting purposes between the hours of six and eight o'clock and between the hours of seventeen and nineteen o'clock.

45. Application of the Lenora and Mount Sicker Copper Mining Company, Limited, for approval of the place and mode of crossing by its tramway of the line of the Esquimalt and Nanaimo Railway Company, at a point in the Somenas district of Vancouver Island.—Approved of said crossing, by means of and overhead pony truss bridge.

46. Application of the Great North-west Central Railway Company for approval of the place and mode of junction of its railway with the railway of the Canadian Pacific Railway Company at a point in Section 28, Township 10, Range 18, West 1st P. M., Manitoba, as shown on plan and profile submitted.—Approved.

47. Application of the Canadian Northern Railway Company for an order approving of the construction of its railway along amd across certain streets in the village of Carman, Manitoba, as shown on the plan submitted.—Order issued to the effect, that until the committee has been satisfied that the property owners, merchants and dealers along the South Railway street have been compensated for injury to their property, which they would sustain in consequence of the Railway Company running its main line along this street, leave will not be granted to the said company to run its railway along South Railway street in the said village of Carman.

48. Application of the Canadian Pacific Railway Company for approval of change in the location af its Pheasant Hill branch from Kirkella to a point in Section 29, Township 16, Range 31, West 1st P. M., shown on the plan, profile and book of reference submitted.—Approved.

49. Application of the Ontario and Quebec Railway Company (C.P.R.) for approval of changes in the location of the line of its railway running through the counties of Lanark, Frontenac, Addington, Hastings, Durham, Ontario and York, in the province Ontario, shown on plans, profiles and books of reference submitted.—Approved.

50. Application of the Montreal Terminal Railway Company for approval of the places and mode of crossing the tracks of the Montreal Street Railway, at rail level, at the intersections of Moreau street and Ontario street, Frontenac and Forsyth streets, Papineau avenue and Marie Anne streets, Dufferin and Marie Anne streets, St. Denis and Marie Anne streets, Rachel and Cadieux streets, Ontario street and Hotel de Ville avenue and St. Catherine streets and Hotel de Ville avenue—all in the city of Montreal. —Approved.

51. Application of the Grand Trunk Railway Company for approval of changes in the location of the line of its railway west of Newtonville station in the township of Clarke, in the county of Durham, Ontario, being from M. P. 279¾ to M. P. 283¼ west of Montreal, and for a further change in the location of its line being through the Broken Front Concession of the township of Darlington, county of Durham, Ontario, from M. P. 287½ to Bowmanville, shown on plans, profiles and books of reference submitted. —Approved.

52. Application of the Corporation of the village of De Lorimier, for permission to cross with a highway the tracks of the Canadian Pacific Railway Company at Iberville street, in the said village.—Granted.

53. Application of the Grand Trunk Railway Company for an order sanctioning the building of a branch line or siding fron its railway, south of St. Etienne street, crossing that street to the premises of the Lang Packing and Provision Company, Limited, in the city of Montreal, and for approval of the plan, profile and books of reference of the said branch line or siding.—Granted.

54. Application of the Grand Trunk Railway Company for an order closing up that portion of road allowance between concessions nine and ten, lot twenty-four, in the township of Mara, province of Ontario, from the Mully Point road, between lots twenty-three and twenty-four, westward to the south limit of the said company's land, crossing said road allowance as shown on plan submitted.—Granted.

55. Application of the Crow's Nest Southern Railway Company for approval of plan and profile of a proposed crossing by its railway of the British Columbia Southern Railway, at or near Morrisey Creek, in the province of British Columbia, by means of an overhead bridge.—Approved.

56. Application of the Crow's Nest Southern Railway Company for approval of plan and profile of a proposed crossing by its railway of the British Columbia Southern Railway, at or near Elks, in the province of British Columbia, by means of an overhead bridge.—Approved.

57. Application of the Canadian Pacific Railway Company for approval of the plan of a permanent bridge without swing or draw span to replace the present wooden bridge over the Assiniboine River, near Headingly, Manitoba, the said permanent bridge to be a steel structure, as shown on the plan submitted.—Approved, subject to the condition, that should navigation or the needs of commerce even at a later period, require the opening of the said permanent steel bridge, the said company will, upon being requested so to do by the Department of Public Works of Canada, immediately proceed to establish the said opening in the manner required by the said Department of Public Works of Canada.

58. Application of Messrs. Poupore and Malone, contractors, for permission to cross with their single tracks of the Montreal Terminal Railway Company, at a point on Nicolet street, in the city of Montreal.—Granted.

59. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for approval of the plans and profiles of the portion of its line of railway in the townships of Dereham and West Oxford and in the town of Ingersoll, Ontario, showing the crossing of all public highways in the said townships and town of Ingersoll, at rail level, or otherwise.—Approved.

60. Application of the Edmonton, Yukon and Pacific Railway Company for approval of the place and mode of junction of its railway with the railway of the Calgary and Edmonton Railway Company near Strathcona, Alberta.—Approved.

61. Application of the Durham Switch Line Railway Company for approval of the plans and profiles of the portion of its line of railway in townships of Bentinck, Glenelg, Egremont and the town of Durham, in the province of Ontario, showing the crossings of all public highways in the said townships and town of Durham, at rail level, or otherwise.—Approved.

62. Application of the Durham Switch Line Railway Company for approval of the place and mode of junction of its railway with the Grand Trunk Railway at Durham station.—Approved.

63. Application of the Algoma Central and Hudson Bay Railway Company for approval of plan and profile of proposed crossing, at rail level, by its railway of the Canadian Pacific Railway at or near the town of Sault Ste. Marie, Ontario.—Approved.

64. Application of the Grand Trunk Railway Company for an order sanctioning the building of a line of railway from a point on north ½ lot 46, con. 2, township of Brantford, county of Brant, to a point on north ½ lot 11, con. 1, township of Beverley, county of Wentworth, so as to place the city of Brantford on the main line, and for approval of plan, profile and book of reference of the said line of railway.—Granted.

65. Application of the Canadian Pacific Railway Company for an order directing that the Toronto Railway Company shall provide additional protective appliances at its crossing of the line of the Canadian Pacific Railway at Queen street east near the Don River, Toronto.—Granted.

66. Application of the Canadian Northern Railway Company for an order sanctioning the building of branch lines from its main line to Ogilvies mills and Sprague's mills, Point Douglas, Winnipeg, and for approval of plans, profiles and books of reference of the said branch lines.—Granted.

67. Application of the Corporation of the city of Toronto for authority to extend the tracks of the Toronto Railway Company on Bloor street across the tracks of the Grand Trunk Railway, Toronto, Grey and Bruce Railway and the Canadian Pacific Railway, as shown on plan submitted.—Dismissed.

70. Application of the Canadian Northern Railway Company for approval of the place and mode of crossing, at rail level, by its railway of the Manitoba and North-western Railway of the Canadian Pacific Railway Company near the town of Gladstone, Manitoba.—Granted.

71. Application of the Canadian Pacific Railway Company for an order directing that the Canadian Northern Railway Company provide full interlocking appliances at its crossing of the Manitoba and North-western Railway near the town of Gladstone, Manitoba.—Under consideration.

72. Application of the Tilsonburg, Lake Erie and Pacific Railway Company for approval of the place and mode of junction of its railway with the Canadian Pacific Railway in the town of Ingersoll, Ontario.—Approved.

73. Application of the Canadian Pacific Railway Company for an order directing the Port Arthur, Duluth and Western Railway Company, now the Canadian Northern Railway Company, to provide, maintain and operate, at its own cost, an interlocking, derailing and signal system at the crossings of the Canadian Pacific Railway at Port Arthur and Fort William, in the province of Ontario.—Granted.

74. Application of the Canadian Northern Railway Company for an order amending order directing that an interlocking, derailing and signal system be installed at the crossings of the Canadian Pacific Railway at Port Arthur and Fort William.—Under consideration.

75. Application of the Schomberg and Aurora Railway Company for approval of the place and mode of crossing by its railway of the line of the Grand Trunk Railway Company at a point north of King station, as shown on plans and profiles submitted.—Under consideration.

76. Application of the Cape Breton Railway Company for approval of proposed diversion of a public road at Point Tupper to take the place of the present highway, as shown on plan submitted —Dismissed.

77. Application of the Municipal Corporation of the village of Dutton for permission to open up across the lands of the Canada Southern Railway and the Lake Erie and Detroit River Railway a highway known as Charles street, and to extend the said Charles street and also Dancy street across the tracks of the said railway companies.—Under consideration.

78. Application of the Corporation of the city of Toronto for an order directing that a certain watér main may be laid and maintained under the tracks of the Canadian Pacific Railway Company, situate on the road on the west side of the Don Improvement, in the city of Toronto.—Granted.

79. Application of the Lévis County Railway Company for approval of the places and modes of three proposed crossings by its electric railway of the Intercolonial Railway between Hadlow and St. Romuald stations, in the province of Quebec, as shown on plans submitted.—Approved.

80. Application of the Cape Breton Electric Railway Company for an order permitting its electric cars to cross the tracks of the Intercolonial Railway, at rail level, at Townshend street, Esplanade street, Ferry street and George street, in the town of Sydney, Nova Scotia, as shown on plans and profiles submitted.—Under consideration.

81. Application of the Kettle River Valley Railway Company for approval of the place and mode of crossing, by its railway, of the Columbia and Western Railway, as shown on the plan and profile submitted.—Approved.

82. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for an order sanctioning the building of a branch line of railway from its main line extending to Columbia and Grand Forks, B.C., and for approval of plan, profile and book of reference of the said branch line.—Under consideration.

83. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for an order sanctioning the building of a branch line of railway from its main line extending to Granby smelters, near the city of Grand Forks, a distance of 4·4 miles, and for approval of plan, profile and book of reference of the said branch line.—Under consideration.

81. Application of the Vancouver, Victoria and Eastern Railway and Navigation Company for approval of plans and profiles of the proposed crossing, by that railway, of the line of the Grand Forks and Kettle River Railway.—Under consideration.

82. Application of the Ottawa Improvement Commission for an order directing the Canada Atlantic Railway Company to construct, at its own cost, a subway 30 feet in width under its tracks on the canal lands between Isabella and Catherine streets, Ottawa.—Under consideration.

83. Application of the Canadian Pacific Railway Company for use of tracks and facilities at Central station, Ottawa, for through as well as terminal purposes.—Under consideration.

84. Application of the Ottawa, Northern and Western Railway Company to the Committee to determine the terms and conditions on which it may use, for railway purposes (jointly with all parties entitled to use the same), the passenger station and passenger tracks and approaches in connection therewith, situate on Ordnance lands of the Crown near Sappers' Bridge, Ottawa.—Under consideration.

85. Application of the Pontiac Pacific Junction Railway Company to the Committee to determine the terms and conditions on which it may use, for railway purposes (jointly with all parties entitled to use the same), the passenger station and passenger tracks and approaches in connection therewith, situate on Ordnance lands of the Crown near Sappers' Bridge, Ottawa.—Under consideration.

86. Application of the Ottawa, Northern and Western Railway Company for approval of the place and mode of junction of its railway with the Canada Atlantic Railway near Sapper's Bridge, Ottawa.—Under consideration.

87. Application of the Sun Portland Cement Company of Owen Sound for permission to build a switch or branch line one and three-quarter miles long, from a point on the Grand Trunk Railway at or near Shallow Lake station north-westerly to a point on McNab Lake in the township of Keppel, Ontario.—Granted.

88. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Norton, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

89. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of South Algona, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

90. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Grattan, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

91. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Bromley, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

92. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of Admaston, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

93. Application of the Canada Atlantic Railway Company for approval of the plans and profiles of the portion of its line of railway now constructed in the township of McNab, county of Renfrew, Ontario, showing the crossings of all public highways in the said township, at rail level or otherwise.—Approved.

94. Application of the Canadian Northern Railway Company for approval of the place and mode of crossing by its railway of the Canadian Pacific Railway on Point Douglas avenue, Winnipeg.—Under consideration.

95. Application of the town of Toronto Junction for a variation of orders Nos. 5163 and 5164, *re* St. Clair avenue and Davenport road crossings.—Under consideration.

96. Application of the Toronto Railway Company for approval of place and mode of crossing by its railway of the Canadian Pacific Railway where the same crosses Avenue road, Toronto.—Under consideration.

97. Petition of the Township of Thompson, district of Algoma, for an order directing the Canadian Pacific Railway Company to construct a highway crossing over its railway at a point two miles east of Dean Lake station.—Under consideration.

98. Application of the Ontario and Quebec Railway Company (C.P.R.) for approval of change in the location of its railway on lot 6, 3rd concession from the bay, fronting on the Humber, township of York, in the county of York, Ontario.—Under consideration.

99. Application of the Township of Aldborough for better protection of the highway crossings in the villages of Rodney and West Lorne on the Canada Southern and Lake Erie and Detroit River Railways.—Under consideration.

100. Application of the Algoma Central and Hudson Bay Railway Company for approval of plans and profiles of its proposed crossings of the Canadian Pacific Railway at Sault Ste. Marie, Ontario.—Under consideration.

101. Application of the Morden and North-western Railway Company for approval of the place and mode of crossing by its railway of the Manitoba and North Western Railway (C.P.R.) at Neepawa, Manitoba.—Under consideration.

102. Application of the Municipal Council of the county of Richmond, in the Province of Quebec, for an order directing that a public highway may be constructed across the track of the Grand Trunk Railway Company, at rail level, as shown on plan submitted.—Under consideration.

103. Applicatien of the Canadian Pacific Railway Company for permission to construct a siding or spur track connecting its south western branch with the abattoir of Messrs. P. Gallagher & Sons, Limited, on block thirty-four (34) at or near the corner of Brighton street and Logan avenue in the city of Winnipeg, shown on plan submitted. Granted.

104. Application of the Canadian Pacific Railway Company for permission to construct a siding or spur track from its tracks on Sutherland avenue, then proceeding eastwardly along and across said avenue and across lots ten (10) nine (9) and eight (8) of block three (3) at the corner of Sutherland avenue and Machray street to the premises of the Fairchild Company, Limited, in the city of Winnipeg.—Granted.

105. Application of the Canadian Pacific Railway Company for permission to construct a siding or spur track on Point Douglas avenue in the city of Winnipeg, to connect its line with the premises of the Waterloo Manufacturing Company, Limited. —Granted.

COLLINGWOOD SCHREIBER,
Secretary, Railway Committee, P.C.

Prepared by
J.W. PUGSLEY,
Clerk of the Railway Committee, P.C.

PART II

STATEMENTS OF THE ACCOUNTANT

No. 1.

STATEMENT showing the amount expended by the Department of Railways and Canals, Dominion of Canada, during the Fiscal Year ended June 30, 1902.

Name of Work.	Chargeable to Capital.	Chargeable to Income.	CHARGEABLE TO REVENUE.	
			Staff.	Repairs.
CANALS.	$ cts.	$ cts.	$ cts.	$ cts.
Beauharnois			16,682 52	6,532 33
Carillon		16,998 69	13,725 99	19,366 30
Grenville				
Chambly		19,132 80	18,832 25	17,313 02
Cornwall	90,535 18		17,896 58	15,045 95
Culbute		1,135 00		
Lachine	113,328 26	36,249 02	59,435 33	45,853 97
Lake St. Louis	6,000 00			
Lake St. Francis	13,945 25			
Murray			5,254 51	6,377 19
Rideau		8,894 40	32,193 66	33,959 86
Sault Ste. Marie	122,505 73		15,920 80	14,839 71
Soulanges	235,021 79		22,672 50	2,267 13
Ste. Anne's			1,994 52	3,015 97
St. Lawrence.. North Channel	125,000 00			
St. Lawrence.. Galops Channel	24,037 85			
St. Lawrence.. River Reaches	29,268 64			
St. Ours		15,549 27	2,262 39	984 36
St. Peter's		10,014 43	2,939 81	274 44
Trent	449,075 45	26,165 93	5,575 52	14,984 88
Welland	303,997 81	78,905 37	88,048 95	69,279 90
Williamsburg.. Galops	421,945 81			
Williamsburg.. Rapide Plat	137,818 22		14,403 28	13,673 26
Williamsburg.. Farran's Point	42,209 89			
Total	2,114,689 88	213,044 91	317,838 61	263,768 27
GENERAL ON CANALS.				
Arbitrations and awards		661 75		
Dredge vessels—Lachine				5,265 36
" Rideau				7,364 14
Miscellaneous			795 90	79 39
Salaries and contingencies, canal officers			33,311 46	
Sunday labour			19,014 40	
Surveys and inspections		2,996 48		
Total		3,658 23	53,121 76	12,648 89
RAILWAYS.				
Canadian Pacific	448 70			
Drummond County	5,000 00			
Intercolonial	4,665,590 80		5,574,563 30	
Prince Edward Island	475,997 94		270,159 97	
Windsor Branch			16,376 27	
Yukon Territory works (Stikine—Teslin)	283,323 55			
Total	5,430,360 99		5,861,099 54	
GENERAL ON RAILWAYS.				
Gathering information with reference to a railway commission		6,188 78		
Miscellaneous works		52 26		
Railway Statistics		731 88		
Carried forward		6,972 92		

No. 1.—STATEMENT showing the amount expended by the Department of Railways and Canals, &c.—*Concluded.*

Name of Work.	Chargeable to Capital.	Chargeable to Income.	Chargeable to Revenue.	
			Staff.	Repairs.
	$ cts.	$ cts.	$ cts.	$ cts.
Brought forward		6,972 92		
GENERAL ON RAILWAYS—*Concluded.*				
Railway Subsidies		2,093,939 00		
Repairs to Governor General's car		1,144 53		
Reporting evidence before Railway Committee of the Privy Council		500 00		
Subscription to Railway Congress, Brussels		97 33		
Surveys and inspections		13,037 80		
Total		2,115,691 58		
MISCELLANEOUS.				
Costs of litigation		5,994 48		
Salaries of engineers, draughtsmen, &c		25,755 74		
" extra clerks, &c		2,090 20		
" " *re* returns for parliament		298 08		
Total		34,138 50		
RECAPITULATION.				
Total on Canals	2,114,689 88	213,044 91	317,838 61	263,768 27
" " general		3,658 23	53,121 76	12,648 89
Total on Canals	2,114,689 88	216,703 14	370,960 37	276,417 16
Total on Railways	5,430,360 99		5,861,099 54	
" " general		2,115,691 58		
Total on Railways	5,430,360 99	2,115,691 58	5,861,099 54	
Grand Total, Railways and Canals, including Miscellaneous	7,545,050 87	2,366,533 22	6,232,059 91	276,417 16

Total amount expended, $16,420,061.16.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 23, 1902.

No. 2.

STATEMENT showing the amount expended on Construction, Renewals, Ordinary Repairs and Working Staff of the Canals of the Dominion of Canada, up to June 30, 1902.

ST. PETER'S CANAL.

—	Year ending June 30.	Capital.	Renewals, Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation	.....	156,523 32	.....	.....	.....
" since " ..	1868	21,519 72	.....	.....	.....
" " " ..	1869	70,719 80	.....	.....	.....
" " " ..	1870	.....	46,193 57	.....	.....
" " " ..	1871	.....	.....	225 36	555 78
" " " ..	1872	.....	.....	280 00	6,122 67
" " " ..	1873	.....	.....	343 32	6,539 58
" " " ..	1874	.....	.....	725 93	1,558 57
" " " ..	1875	20 97	.....	560 00	889 35
" " " ..	1876	11,125 00	.....	641 55	.....
" " " ..	1877	63,330 18	.....	600 00	17 45
" " " ..	1878	26,511 51	.....	600 00	.....
" " " ..	1879	107,337 75	.....	631 50	.....
" " " ..	1880	80,120 54	.....	400 00	.....
" " " ..	1881	69,434 76	.....	959 58	.....
" " " ..	1882	484 00	.....	1,920 54	200 63
" " " ..	1883	.....	.....	2,089 19	232 42
" " " ..	1884	2,471 40	.....	2,601 47	367 85
" " " ..	1885	16,820 15	.....	1,929 11	183 11
" " " ..	1886	2,316 85	.....	2,360 67	297 81
" " " ..	1887	1,087 75	750 00	2,777 13	343 23
" " " ..	1888	.....	.....	3,217 77	1,588 40
" " " ..	1889	.....	500 00	3,085 29	353 38
" " " .	1890	.....	.....	3,110 15	255 34
" " " ..	1891	972 65	510 53	3,255 30	312 02
" " " ..	1892	14,387 00	36,936 82	3,007 70	1,461 24
" " " ..	1893	811 59	9,987 78	2,938 15	1,856 30
" " "	1894	437 05	3,852 21	2,935 94	1,986 70
" " " ..	1895	868 44	26,222 46	2,499 81	353 55
" " " ..	1896	1,455 21	16,743 64	2,182 04	260 90
" " " .	1897	.....	.....	2,728 38	1 20
" " " ..	1898	.....	111 70	2,785 25	453 85
" " " .	1899	.....	.....	2,819 86	456 61
" " " ..	1900	.....	.....	2,833 24	1,483 30
" " " ..	1901	.....	2,311 26	2,730 44	841 63
" " " ..	1902	.....	10,014 43	2,939 81	274 44
		648,755 64			
LESS—Refunds of previous years.....	....	208 50			
Total	....	*648,547 14	148,134 40	62,714 48	29,246 71

* Expenditure as above..... $ 648,547 14
Less expenditure prior to Confederation..... 156,523 32

Agreeing with Public Accounts, 1902, page 4..... $ 492,023 82

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

BAIE VERTE CANAL.

	Year ending June 30.	Capital.	Income.
		$ cts.	$ cts.
Government expenditure prior to Confederation			
" since "	1868		
" " "	1869		
" " "	1870		
" " "	1871		17,929 34
" " "	1872		6,399 41
" " "	1873		14,943 83
" " "	1874		4,018 90
" " "	1875		443 00
" " "	1876		110 75
" " "	1877		22 30
" " "	1878		
" " "	1879		
" " "	1880		
" " "	1881		520 00
" " "	1882		
" " "	1883		
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" " "	1897		
" " "	1898		
" " "	1899		
" " "	1900		
" " "	1901		
" " "	1902		
Total			44,387 53

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

LACHINE CANAL.

——	Year ending June 30.	Chargeable to Capital.		Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Expenditure by Imperial Government	....	40,000 00				
Government expenditure prior to Confederation	....	2,547,532 85				
Government expenditure since Confederation	1868			1,852 70	13,742 05	10,431 51
" "	1869	2,000 00			14,209 02	12,085 84
Cost of original construction and enlargement of 1843 to 1848	....		2,589,532 85			
Expenditure by Dominion Government	1870				15,834 49	13,302 39
" "	1871			12,231 40	17,478 52	15,093 25
" "	1872	36,708 15			16,076 93	12,334 69
" "	1873	7,824 28		35,158 21	23,601 03	34,300 60
" "	1874	158,618 35			25,811 07	22,828 66
" "	1875	197,420 52			28,592 01	30,057 34
" "	1876	327,769 39			33,797 73	29,103 65
" "	1877	1,439,375 73			33,148 86	19,824 33
" "	1878	1,484,619 63			39,062 97	13,646 41
" "	1879	958,053 30			42,338 84	12,400 78
" "	1880	369,566 74			38,950 90	10,223 62
" "	1881	292,165 51			39,027 99	19,888 33
" "	1882	252,821 33		2,978 66	41,158 90	17,116 46
" "	1883	396,496 96		1,859 68	45,554 91	18,199 59
" "	1884	188,266 18			48,624 51	19,683 24
" "	1885	111,215 23			49,004 85	20,199 78
" "	1886	210,509 42			50,969 10	19,199 18
" "	1887	28,772 52		12,981 59	53,113 97	22,567 81
" "	1888	19,414 34		7,996 38	52,229 61	19,999 64
" "	1889	76,032 96		972 71	54,110 67	22,957 71
" "	1890	7,448 03		8,238 46	53,114 34	22,999 38
" "	1891	217 53		16,155 75	50,721 69	36,292 98
" "	1892	87,852 35		27,480 80	52,729 37	67,499 62
" "	1893	445,983 21		50,937 40	53,185 00	51,616 79
" "	1894	64,345 14		17,152 48	60,174 03	40,939 70
" "	1895	189,944 36		32,405 20	56,337 44	25,891 45
" "	1896	184,998 25		8,193 15	58,342 96	24,950 20
" "	1897	282,052 48		14,664 21	57,533 20	25,820 73
" "	1898	216,717 44		819 62	57,282 50	33,391 92
" "	1899	162,351 83		3,103 99	55,990 00	35,776 90
" "	1900	125,009 41		12,210 88	56,791 45	31,988 81
" "	1901	97,305 52		12,072 87	58,364 29	50,005 48
" "	1902	113,328 26		36,249 02	59,435 33	45,853 97
Cost of enlargement	....		8,533,204 35			
Total			11,122,737 20	315,715 16	1,506,440 53	908,472 74

Total expenditure on capital account as above		$ 11,122,737 20
Less charged to St. Lawrence River and Canals, see page 9	$ 2,950,104 15	
Less expenditure by Imperial Government	40,000 00	
		2,990,104 15
Agreeing with Public Accounts balance sheet, 1902, page 4		$ 8,132,633 05

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

BEAUHARNOIS CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
			$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation		1,611,424 11			
" since " "	1868		63,193 75	9,349 99	6,216 98
" " " "	1869		55 00	9,626 99	6,498 57
" " " "	1870		27 50	10,117 57	6,384 81
" " " "	1871			12,316 53	5,722 36
" " " "	1872		27 50	11,792 46	15,733 38
" " " "	1873		5,122 50	12,210 73	9,882 06
" " " "	1874		26 00	15,392 51	10,990 56
" " " "	1875		36 00	14,399 32	12,253 01
" " " "	1876			14,465 86	17,170 83
" " " "	1877			14,377 63	15,207 36
" " " "	1878			14,383 37	9,861 05
" " " "	1879			15,015 86	10,370 71
" " " "	1880	266 15		15,362 61	8,997 34
" " " "	1881			17,659 93	10,770 67
" " " "	1882			18,804 53	20,813 86
" " " "	1883		6,727 44	18,287 77	15,826 71
" " " "	1884		3,277 98	19,107 38	16,232 61
" " " "	1885		7,999 79	18,960 40	14,637 70
" " " "	1886		8,491 80	19,228 90	14,356 00
" " " "	1887		3,633 57	18,867 45	14,999 88
" " " "	1888		14,411 97	19,325 05	14,285 98
" " " "	1889		10,993 52	20,019 11	14,982 54
" " " "	1890			19,847 42	14,999 20
" " " "	1891		17,085 68	18,886 86	12,537 39
" " " "	1892		1,696 23	20,050 01	14,999 80
" " " "	1893			20,348 34	14,107 11
" " " "	1894		6,547 72	20,574 53	13,903 46
" " " "	1895		27,982 93	20,428 59	12,299 49
" " " "	1896			20,725 47	15,050 85
" " " "	1897		9,813 15	21,012 64	14,862 98
" " " "	1898	25,000 00	5,799 34	20,650 00	16,164 92
" " " "	1899		1,000 00	20,613 22	13,463 01
" " " "	1900		4,959 22	20,147 59	14,505 30
" " " "	1901		483 40	20,118 42	14,199 12
" " " "	1902			16,682 52	6,532 33
Total		*1,636,690 26	199,391 99	599,157 56	449,819 93

* See page 9 for total cost of St. Lawrence River and Canals.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

ST. LAWRENCE RIVER AND CANALS, SURVEYS, &c.

	Year ending June 30.	Chargeable to Capital.				Chargeable to Income.
		North Channel.	River Reaches.	Galops Channel.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation					18,442 85	98,378 46
Government expenditure since Confederation	1868					
" "	1869					
" "	1870					
" "	1871					
" "	1872					
" "	1873				33,241 69	
" "	1874				26,541 30	
" "	1875				20,611 36	
" "	1876				50,215 47	
" "	1877				47,377 31	
" "	1878				5,570 46	
" "	1879				9,265 77	
" "	1880				9,214 56	
" "	1881				6,927 96	
" "	1882		6,933 45	22,000 00	28,933 45	
" "	1883		3,574 31	41,300 00	44,874 31	
" "	1884		15,546 03	74,300 00	89,846 03	
" "	1885		13,710 17	101,400 00	115,110 17	
" "	1886		16,251 73	99,800 00	116,051 73	
" "	1887		20,037 31	54,400 00	74,437 31	
" "	1888		16,082 85	40,400 00	56,482 85	
" "	1889		1,293 92	17,200 00	18,493 92	
" "	1890		18,279 91	5,700 00	23,979 91	
" "	1891		35,137 25		35,137 25	
" "	1892		59,779 31		59,779 31	
" "	1893		52,643 39		52,643 39	
" "	1894		13,721 66		13,721 66	
" "	1895		1,223 72	181,552 03	182,775 75	
" "	1896		7,457 05		7,457 05	
" "	1897		12,347 31		12,347 31	
" "	1898	171,336 65	7,491 11	32,710 00	211,537 76	
" "	1899	461,979 50	9,366 47	42,430 00	513,775 97	
" "	1900	225,000 00	72,484 41	50,000 00	347,484 41	
" "	1901	184,790 34	19,389 75	91,211 97	295,392 06	
" "	1902	125,000 00	29,268 64	24,037 85	178,306 49	
		1,168,106 49	432,019 75	878,441 85	2,705,976 82	98,378 46

ST. LAWRENCE RIVER AND CANALS.

St. Lawrence River and Canals, as above		$ 2,705,976 82
Beauharnois Canal, see page 8		1,636,690 26
Cornwall Canal	" 12	6,885,465 16
Williamsburg Canal	" 14	9,217,971 57
Lake St. Louis	" 10	280,750 49
Soulanges Canal	" 26	6,489,714 22
Lachine Canal, from prior to Confederation to June 30, 1875, see page 7		2,950,104 15
Lake St. Francis, see page 11		70,906 71
Agreeing with Public Accounts Balance Sheet, 1902, page 4		$30,237,579 38

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

LAKE ST. LOUIS.

—	Year ending June 30.	Chargeable to Capital.	Chargeable to Income.
		$ cts.	$ cts.
Government expenditure prior to Confederation			
" " since "	1868		
" " " "	1869		
" " " "	1870		
" " " "	1871		
" " " "	1872		
" " " "	1873		
" " " "	1874		
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" " " "	1894		
" " " "	1895	4,753 14	
" " " "	1896	49,909 31	
" " " "	1897	73,300 41	
" " " "	1898	64,495 83	
" " " "	1899	57,607 79	
" " " "	1900	11,765 70	
" " " "	1901	12,918 31	
" " " "	1902	6,000 00	
Total		*280,750 49	

* Included in total cost of St. Lawrence River and Canals, see page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

LAKE ST. FRANCIS.

	Year ending June 30.	Capital.	Renewals Chargeable to Income.
		$ cts.	$ cts
Government expenditure since Confederation	1868		
" " " "	1869		
" " " "	1870		
" " " "	1871		
" " " "	1872		
" " " "	1873		
" " " "	1874		
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" " " "	1896		
" " " "	1897		
" " " "	1898	3,420 00	
" " " "	1899	23,110 00	
" " " "	1900	15,431 46	12,288 39
" " " "	1901	15,000 00	8,060 30
" " " "	1902	13,945 25	
Total		70,906 71	20,348 69

*Included in total cost of St. Lawrence River Canals, see page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

CORNWALL CANAL.

—	Year ending June 30.	Chargeable to Capital.		Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation		1,933,152 69				
Government expenditure since Confederation	1868			2,786 00	11,244 47	3,774 18
" "	1869	10,692 04			10,347 91	3,859 14
" "	1870			17,780 05	10,368 16	7,145 42
" "	1871			7 50	11,848 39	8,891 61
" "	1872			10,000 21	10,594 30	8,163 70
" "	1873			1,011 75	13,042 25	12,467 65
" "	1874				13,405 20	7,610 70
" "	1875	1,780 00			13,351 91	7,097 34
Cost of original construction			1,945,624 73			
Expenditure by Dominion Government	1876				13,320 61	6,423 67
" "	1877	49,211 37			13,375 70	6,440 54
" "	1878	145,015 45			13,825 50	4,935 21
" "	1879	143,032 05			13,817 96	4,983 15
" "	1880	109,454 95			14,440 33	9,735 76
" "	1881	53,948 14			15,173 60	5,524 10
" "	1882	44,587 61			15,052 20	6,634 62
" "	1883	21,728 93			18,283 67	8,361 71
" "	1884	22,018 13			18,475 48	9,007 73
" "	1885	62,034 90		16,298 96	15,988 96	12,368 51
" "	1886	57,820 83		6,960 95	15,994 80	11,832 83
" "	1887	46,966 43			17,520 54	12,100 29
" "	1888	67,945 74			16,938 54	13,942 64
" "	1889	163,993 85			17,890 55	58,205 26
" "	1890	365,038 01		2,000 00	17,063 49	12,758 18
" "	1891	599,001 85		1,459 98	16,077 72	9,830 05
" "	1892	398,555 25		2,345 26	15,596 66	9,864 36
" "	1893	352,536 13			15,173 01	9,668 14
" "	1894	404,990 22			15,344 02	7,733 54
" "	1895	450,689 65		21,497 74	15,414 56	13,053 55
" "	1896	448,408 31		2,175 00	15,472 26	25,259 56
" "	1897	438,487 51			15,540 43	16,438 32
" "	1898	133,208 96			15,011 50	15,431 02
" "	1899	37,649 00		15,960 80	16,000 00	14,623 90
" "	1900	169,889 51		18,547 50	18,798 10	13,998 29
" "	1901	62,032 47			17,104 13	13,166 89
" "	1902	90,535 18			17,896 58	15,045 95
Cost of enlargement			4,939,840 43			
Total			*6,885,465 16	118,831 70	524,793 49	406,377 51

* Included in total cost of St. Lawrence River and Canals, see page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

WILLIAMSBURG CANALS.

	Year ending June 30	Capital.				Renewals, Chargeable to Income.	Staff.	Repairs.
		Farran's Point.	Galops.	Rapide Plat.	Total.			
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation being amount of original construction					1,326,655 54			
Government expenditure since Confederation	1868						5,745 97	6,442 41
" " "	1869						5,769 81	5,670 88
" " "	1870						5,573 13	6,546 16
" " "	1871						6,382 17	5,308 41
" " "	1872					1,077 00	5,542 94	3,230 07
" " "	1873						6,424 49	7,347 75
" " "	1874						6,857 19	7,395 92
" " "	1875						6,547 62	4,110 29
" " "	1876						7,418 39	11,690 98
" " "	1877						7,388 68	10,053 64
" " "	1878						7,430 11	4,449 78
" " "	1879						7,517 20	3,549 71
" " "	1880						7,590 15	3,999 77
" " "	1881						7,572 35	5,020 73
" " "	1882						7,589 44	7,447 69
" " "	1883				13 19		7,423 48	7,299 39
" " "	1884				2,473 44		7,757 04	7,349 37
" " "	1885		70,764 07	32,473 05	103,237 12		7,696 67	8,198 03
" " "	1886		78,014 92	71,820 79	149,835 71		7,671 54	7,847 05
" " "	1887		32,862 02	82,990 98	115,853		7,635 54	7,904 76
" " "	1888		16,628 95	53,499 34	70,128 29	1,613 67	7,646 79	8,190 13
" " "	1889		37,661 15	22,206 11	59,867 26		7,485 28	8,794 61
" " "	1890		126,417 42	12,660 95	139,078 37		8,954 53	8,191 69
" " "	1891	2,853 76	172,779 88	55,036 96	230,670 60		8,678 25	7,987 40
" " "	1892		218,511 17	158,034 15	376,545 32	797 83	9,458 33	8,551 32
" " "	1893		154,524 01	217,669 28	372,193 29	3,675 00	8,676 03	8,347 97
" " "	1894		223,992 81	274,397 42	498,390 23		10,230 09	7,029 95
" " "	1895		118,464 53	228,892 70	347,357 23	13,720 36	9,675 09	7,371 37
Carried forward		2,853 76	1,250,620 93	1,209,681 73	3,786,298 59	20,883 86	210,337 70	195,327 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

WILLIAMSBURG CANALS—*Continued.*

	Year ending June 30.	Capital.				Renewals Chargeable to Income.	Staff.	Repairs.
		Farran's Point.	Galops.	Rapide Plat.	Total.			
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Brought forward		2,853 76	1,250,620 93	1,209,681 73	3,786,298 59	20,883 86	210,337 70	195,327 20
Government expenditure since Confederation	1896	4,980 00	150,744 16	286,396 96	442,121 12	8,607 04	9,588 51	9,036 00
" " "	1897	.....	262,795 78	205,480 55	468,274 33	3,880 76	8,697 54	8,210 71
" " "	1898	231,321 44	734,492 07	116,072 55	1,081,886 06	.....	10,708 66	8,032 84
" " "	1899	346.956 54	987,186 44	57,869 18	1,392,012 16	7,410 00	9,960 64	10,000 00
" " "	1900	100,534 64	752,799 27	14,298 74	867,632 65	4,137 04	11,092 06	10,897 79
" " "	1901	111,158 39	390.112 78	76,501 57	577,772 74	.....	12,342 32	11,755 09
" " "	1902	42,209 89	421,945 81	137,818 22	601,973 92	.....	14,403 28	13,673 26
Total		840,014 66	4,950,695 24	2,104,119 50	9,217,971 57	44,918 70	287,130 71	266,932 89

* Original construction ..... $ 1,320,655 54
Cost of enlargement 7,897,316 03

Total ..... $ 9,217,971 57

Included in total cost of St. Lawrence River and Canals, page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

WELLAND CANAL.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Imperial Government		222,220 00			
Government expenditure prior to Confederation		7,416,019 83			
" since "	1868	12,097 84		37,679 05	38,852 96
" " "	1869	43,486 36		39,060 61	50,773 03
" " "	1870		22,173 72	40,340 45	65,009 19
" " "	1871		48,569 10	42,383 33	53,381 02
" " "	1872	53,680 32	6,022 44	37,085 37	50,276 90
" " "	1873	82,282 20	47,876 27	45,382 99	66,550 73
" " "	1874	746,420 61		50,966 48	103,666 99
" " "	1875	1,047,119 91		52,595 00	88,539 99
" " "	1876	1,569,478 19	700 00	57,623 31	81,376 12
" " "	1877	2,199,962 61		59,963 47	49,783 93
" " "	1878	2,138,392 99		60,138 59	66,393 53
" " "	1879	1,552,697 41		59,942 23	56,755 57
" " "	1880	1,252,924 75		63,198 10	76,535 25
" " "	1881	1,242,943 37	6,593 19	56,398 04	69,249 53
" " "	1882	603,402 17	13,664 80	74,641 51	84,374 97
" " "	1883	549,433 29	5,979 03	109,207 21	72,707 62
" " "	1884	432,336 21		113,276 87	90,926 97
" " "	1885	463,505 38	6,150 21	112,670 00	91,534 66
" " "	1886	215,380 75	1,359 00	111,660 22	69,507 48
" " "	1887	1,071,073 87	3,828 67	109,371 69	77,440 80
" " "	1888	429,720 94	10,740 86	110,806 01	86,518 97
" " "	1889	225,910 21	43,803 80	113,587 05	77,547 77
" " "	1890	117,633 22	51,648 28	109,202 02	72,686 19
" " "	1891	36,371 03	19,767 73	107,662 63	82,548 30
" " "	1892	29,541 21	9,008 80	104,673 73	73,771 87
" " "	1893	8,259 94	25,103 13	104,926 73	65,016 84
" " "	1894	1,571 78	13,430 20	102,018 80	53,053 71
" " "	1895	3,809 35	24,245 02	90,438 07	48,270 94
" " "	1896	1,677 67	18,768 99	87,988 11	62,542 64
" " "	1897	2,282 35	22,283 06	88,095 20	41,247 81
" " "	1898		34,803 25	84,806 54	59,571 66
" " "	1899		30,099 84	86,110 88	56,270 60
" " "	1900	18,167 29	37,164 84	84,888 36	59,507 64
" " "	1901	224,536 96	87,777 43	86,889 24	72,055 89
" " "	1902	303,997 81	78,905 37	88,048 95	69,279 90
Total		*24,318,337 82	670,467 03	2,783,726 84	2,383,527 97

*Total expenditure as above	$ 24,318,337 82
Less expenditure by Imperial Government	222,220 00
Agreeing with Public Accounts Balance Sheet, 1902, page 4	$ 24,096,117 82

Original cost of construction, including first enlargement	$ 7,693,824 03
Enlargement, including new Welland Canal	16,624,513 79
Total expenditure as above	$ 24,318,337 82

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Con.

STE. ANNE'S LOCK AND CANAL.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation		134,456 51			
" since. "	1868			778 16	432 47
" " "	1869			1,062 96	1,873 51
" " "	1870			1,136 54	1,280 36
" " "	1871			1,285 84	1,539 02
" " "	1872		1,939 46	1,166 80	1,393 63
" " "	1873		540 11	2,199 64	1,264 40
" " "	1874	12,753 27		2,614 90	7,208 63
" " "	1875	32,627 71		1,859 20	4,506 68
" " "	1876	24,935 85		1,952 14	4,033 72
" " "	1877	30,003 08		1,982 65	1,756 93
" " "	1878	14,618 85		2,057 32	541 95
" " "	1879	22,113 02		2,202 03	3,259 70
" " "	1880	3,054 68		2,152 57	1,704 71
" " "	1881	69,042 76		2,553 02	3,257 92
" " "	1882	193,158 36		2,611 30	2,343 99
" " "	1883	172,959 95		2,569 86	3,448 83
" " "	1884	142,006 25		2,775 32	2,725 49
" " "	1885	93,679 57		2,618 60	4,042 04
" " "	1886	129,681 67		2,611 90	5,803 01
" " "	1887	45,276 08	6,054 10	2,537 41	1,499 96
" " "	1888	18,910 55	1,372 59	2,505 61	1,380 75
" " "	1889	24,786 33		2,569 22	1,730 79
" " "	1890	6,151 14		2,571 04	1,525 51
" " "	1891		8,173 69	2,505 69	1,503 56
" " "	1892		25,471 61	2,571 28	1,666 21
" " "	1893		6,521 88	2,581 08	2,800 03
" " "	1894		3,497 56	2,640 00	2,799 63
" " "	1895		3,694 33	2,508 14	3,025 91
" " "	1896			2,495 54	4,993 89
" " "	1897			2,357 51	1,688 12
" " "	1898			1,904 10	1,699 44
" " "	1899			1,920 12	1,997 96
" " "	1900			1,840 51	2,679 21
" " "	1901			1,895 89	3,999 02
" " "	1902			1,994 52	3,015 97
Total		*1,170,215 63	57,265 33	75,528 41	90,422 95

*Included in total cost of Ottawa River Works, see page 19.

Original construction	$ 134,456 51
Enlargement, including new lock	1,035,759 12
	$ 1,170,215 63

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

CARILLON AND GRENVILLE CANAL.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Imperial Government		*			
Government expenditure prior to Confederation		63,053 64			
" since " "	1868		19,817 22	6,301 88	8,911 28
" " " "	1869			6,549 38	10,157 42
" " " "	1870		4,167 96	6,617 81	9,852 09
" " " "	1871		23,119 37	8,676 90	8,218 24
" " " "	1872	165,257 28		8,324 51	17,235 31
" " " "	1873	133,199 10	3,051 38	10,068 28	8,781 50
" " " "	1874	245,258 38		10,710 88	10,605 82
" " " "	1875	339,864 76		10,378 57	18,520 44
" " " "	1876	326,203 16		10,764 38	11,475 96
" " " "	1877	245,738 04		11,650 27	10,304 06
" " " "	1878	22,676 20		11,401 30	5,082 72
" " " "	1879	243,141 24		11,501 22	7,629 98
" " " "	1880	281,514 27		11,959 14	7,625 54
" " " "	1881	336,707 53		13,059 18	8,076 91
" " " "	1882	433,084 39		14,387 49	7,582 68
" " " "	1883	433,575 10		17,479 58	8,310 02
" " " "	1884	399,267 16		17,393 91	7,918 42
" " " "	1885	157,187 72		19,702 36	10,429 26
" " " "	1886	104,973 24	75 00	20,597 82	9,303 31
" " " "	1887	20,747 11		20,011 36	10,554 41
" " " "	1888	38,996 29		21,531 12	10,036 62
" " " "	1889	298 17		22,098 88	10,135 66
" " " "	1890	17 58	4,526 61	15,896 16	7,582 38
" " " "	1891		4,395 25	21,230 22	10,796 68
" " " "	1892	34,585 64	15,036 48	17,458 69	8,620 15
" " " "	1893	207 00	42,298 74	16,762 71	10,669 28
" " " "	1894	385 55	20,034 94	14,144 98	11,620 09
" " " "	1895		5,963 76	15,453 21	12,303 25
" " " "	1896	3,850 31		13,995 69	12,161 10
" " " "	1897	1,908 44	4,939 20	13,780 29	11,607 95
" " " "	1898	82,663 37	5,082 03	11,697 81	10,993 61
" " " "	1899	39,999 37		11,919 27	11,478 88
" " " "	1900	22,802 27	4,476 50	13,657 06	14,666 71
" " " "	1901	4,930 65	9,331 95	13,342 22	13,416 00
" " " "	1902		16,998 69	13,725 99	19,366 30
Total		†4,182,092 96	183,315 08	483,630 46	372,030 03

*Expenditure not given—records relating to same were kept in Ordnance Office at Montreal and were destroyed by fire in 1852.

†Included in total cost of Ottawa River Works, see page 19, cost of enlargement, $4,119,039.32.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

CULBUTE LOCK AND DAM.

	Year ending June 30.	Capital.	Renewals Chargeable to Income,	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure since Confederation.	1868				
" " " ..	1869				
" " " ..	1870				
" " " ..	1871				
" " " ..	1872				
" " " ..	1873		835 53		
" " " ..	1874		38,388 99		
" " " ..	1875	63,659 29			
" " " ..	1876	76,842 44			
" " " ..	1877	56,081 87			
" " " ..	1878	5,933 53			
" " " ..	1879	20,694 19			
" " " ..	1880	16,688 20		202 50	259 31
" " " ..	1881	4,721 62		962 85	
" " " ..	1882	29,567 15		790 00	162 33
" " " ..	1883	14,249 60		695 00	288 99
" " " ..	1884	8,151 16		733 50	
" " " ..	1885	19,071 76		730 00	572 75
" " " ..	1886	26,385 27		730 00	2,396 14
" " " ..	1887	7,760 88		730 00	967 33
" " " ..	1888	7,573 99		739 50	730 60
" " " .	1889	17,112 01		1,050 00	116 53
" " " ..	1890	2,818 35		747 83	
" " " ..	1891	2,183 15	9,122 05	745 25	499 91
" " " ..	1892		1,546 25	736 00	
" " " ..	1893		1,420 65	749 00	13 55
" " " ..	1894		2,540 14	730 00	494 43
" " " ..	1895		1,475 26	436 05	434 28
" " " ..	1896				
" " " ..	1897				
" " " ..	1898				100 00
" " " ..	1899				
" " " ..	1900	3,085 00			
" " " ..	1901	197 00			
" " " ..	1902		1,135 00		
Total		*382,776 46	56,463 87	11,507 48	7,036 15

* Included in total cost of Ottawa River Works, see page 19.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

RIDEAU CANAL

	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Imperial Government	...	3,911,701 47	...	...	...
Government expenditure prior to Confederation	...	153,062 60	...	...	...
" since " "	1868	166 50	7,298 12	18,397 28	16,475 21
" " " "	1869	...	...	19,250 71	13,140 77
" " " "	1870	...	13 16	20,022 37	19,469 33
" " " "	1871	...	11,732 98	22,814 58	18,120 52
" " " "	1872	...	4,967 50	22,139 48	14,005 32
" " " "	1873	...	18,070 97	22,841 51	26,074 49
" " " "	1874	...	5,793 16	26,815 44	22,957 40
" " " "	1875	9,310 85	...	26,553 37	19,699 81
" " " "	1876	2,163 96	...	26,430 77	14,428 25
" " " "	1877	214 11	...	25,959 56	14,198 18
" " " "	1878	...	...	26,651 51	11,034 22
" " " "	1879	7,703 88	...	26,042 52	7,134 55
" " " "	1880	...	...	26,463 88	11,434 05
" " " "	1881	...	133 50	26,024 71	8,627 00
" " " "	1882	...	...	26,915 29	13,860 28
" " " "	1883	...	70 65	27 322 81	23,524 84
" " " "	1884	...	4,597 50	26,938 95	19,245 02
" " " "	1885	...	2,098 76	26,971 32	18,189 55
" " " "	1886	...	550 00	27,045 95	35,648 04
" " " "	1887	...	20,823 96	29,440 46	18,565 34
" " " "	1888	...	18,889 48	33,458 83	25,478 87
" " " "	1889	...	6,665 22	33,801 77	18,106 36
" " " "	1890	...	21,124 10	34,270 57	18,025 21
" " " "	1891	...	20,967 25	34,641 98	21,537 56
" " " "	1892	...	31,363 23	35,500 82	21,507 16
" " " "	1893	...	24,274 71	35,022 49	18,789 50
" " " "	1894	...	14,485 11	34,943 35	16,939 47
" " " "	1895	...	31,559 48	33,827 08	19,897 32
" " " "	1896	...	21,452 29	34,052 77	30,196 38
" " " "	1897	...	19,079 11	31,461 55	29,535 94
" " " "	1898	...	13,608 39	30,759 05	26,599 93
" " " "	1899	...	700 29	30,751 20	28,199 49
" " " "	1900	...	11,780 41	30,623 27	30,237 09
" " " "	1901	...	...	31,334 40	33,791 17
" " " "	1902	...	8,894 40	32,193 66	33,959 86
Total	...	*4,084,323 37	320,993 73	997,685 26	718,633 48

*Ottawa River Works.

Ste. Anne's Lock, page 16		$ 1,170,215 63
Carillon and Grenville Canal, page 17		4,182,092 96
Culbute Canal, page 18		382,776 46
Rideau Canal as above	$ 4,084,323 37	
Less expenditure by Imperial Government	3,911,701 47	
		172,621 90
Total Ottawa Works (Capital)		$ 5,907,706 95
Add expenditure on slides and booms prior to Confederation	$ 719,247 13	
Since Confederation	7,243 60	
Add expenditure on Chats Canals prior to Confederation	482,950 81	
Add expenditure in 1881, charged to Miscellaneous, *see* page 229, part ii Public Accounts	1,136 84	
Add amount transferred, *see* page xxxvi Public Accounts, Balance Sheet, 1881	233,555 85	
		1,444,134 23
Less expenditure prior to Confederation, transferred to Income Accounts	$ 320,618 28	$ 7,351,841 18
Less expenditure, 1872, on Carillon and Grenville Canal, as shown in Public Accounts Balance Sheet, page xx, under Miscellaneous	165,257 28	
		485,875 56
Agreeing with Balance Sheet, Public Accounts, 1902, page 4		$ 6,865,965 62

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

S. LEONARD SHANNON,
Accountant.

STATEMENT showing the amounts expended on Construction, Renewals, &c—*Con.*

ST. OURS LOCK.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts	$ cts.	$ cts.
Government expenditure prior to Confederation	....	121,537 65	....	....	.....
" since, " ..	1868	.....	.....	1,532 75	753 74
" " " ..	1869	.....	.....	1,755 15	1,399 18
" " " ..	1870	.....	.....	1,458 09	1,006 22
" " " ..	1871	.....	.....	1,414 48	1,210 98
" " " ..	1872	.....	.....	1,565 80	1,263 19
" " " ..	1873	.....	.....	2,076 50	1,575 10
" " " ..	1874	.....	.....	2,219 13	2,363 42
" " " ..	1875	.....	.....	1,362 22	1,245 69
" " " ..	1876	.....	.....	1,403 92	1,601 71
" " " ..	1877	.....	.....	1,533 40	750 80
" " " ..	1878	.....	.....	1,556 65	283 77
" " " ..	1879	.....	.....	1,581 55	456 07
" " " ..	1880	.....	.....	1,614 01	705 54
" " " ..	1881	.....	.....	1,741 97	1,299 77
" " " ..	1882	.....	.....	2,002 71	1,902 41
" " " ..	1883	.....	17,230 32	2,361 65	2,188 08
" " " ..	1884	.....	5,279 17	2,315 37	1,494 99
" " " ..	1885	.....	4,700 64	2,271 57	3,652 63
" " " ..	1886	.....	.....	2,311 70	4,143 47
" " " ..	1887	.....	.....	2,175 37	5,864 78
" " " ..	1888	.....	.....	2,216 04	2,801 17
" " " ..	1889	.....	17,964 45	2,421 14	2,002 63
" " " ..	1890	.....	24,571 96	2,138 40	1,935 44
" " " ..	1891	.....	21,696 74	2,011 08	1,460 16
" " " ..	1892	.....	3,585 34	2,168 44	1,944 33
" " " ..	1893	.....	.....	2,136 66	1,994 34
" " " ..	1894	.....	.....	2,216 68	924 55
" " " ..	1895	.....	.....	2,161 63	915 50
" " " ..	1896	.....	.....	2,094 91	1,678 49
" " " ..	1897	.....	.....	2,135 60	707 06
" " " ..	1898	.....	.....	2,049 67	692 04
" " " .	1899	.....	.....	2,244 12	1,494 93
" " " ..	1900	.....	1,596 88	2,181 43	2,681 10
" " " ..	1901	.....	3,610 06	2,128 25	1,681 44
" " " ..	1902	.....	15,549 27	2,262 39	984 36
Total	.....	*121,537 65	115,784 83	68,820 43	62,059 08

* Included in the total cost of Chambly Canal and Richelieu River, *see* page 21.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

CHAMBLY CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation	...	634,711 76	.....	.....	.....
" since " " ..	1868	.....	.....	8,312 90	9,355 70
" " " " ..	1869	.....	.....	8,437 22	13,120 97
" " " " ..	1870	.....	.....	8,934 41	20,180 73
" " " " ..	1871	.....	2,839 85	10,214 71	22,426 33
" " " " ..	1872	.....	1,966 40	9,628 50	22,327 99
" " " " ..	1873	.....	759 00	10,390 44	11,789 27
" " " " ..	1874	.....	2,810 00	11,675 67	16,427 19
" " " " .	1875	2,415 00	.....	12,201 99	16,306 91
" " " " ..	1876	.....	.....	10,593 14	13,273 56
" " " " .	1877	80 00	.....	10,281 78	10,111 32
" " " " ..	1878	.....	.....	10,413 99	6,022 96
" " " " ..	1879	.....	.....	11,301 53	8,809 77
" " " " .	1880	.....	.....	11,516 22	12,377 74
" " " " ..	1881	.....	.....	13,950 47	20,705 17
" " " " ..	1882	.....	31,796 41	16,686 78	16,843 60
" " " " ..	1883	.....	21,332 36	15,904 38	15,182 24
" " " " .	1884	.....	41,640 77	18,448 85	12,003 34
" " " " ..	1885	.....	21,049 23	18,378 55	13,046 95
" " " " ..	1886	.....	14,547 27	19,501 28	11,999 77
" " " " ..	1887	.....	17,911 17	19,053 62	20,071 37
" " " " ..	1888	.....	65,536 64	20,073 60	11,823 74
" " " " ..	1889	.....	51,437 87	19,679 22	19,392 18
" " " .	1890	.....	23,221 48	19,655 38	14,399 93
" " " " ..	1891	.....	43,344 41	19,204 76	11,399 93
" " " " ..	1892	.....	38,353 99	19,665 22	12,976 48
" " " " .	1893	.....	21,127 65	19,310 29	12,451 03
" " " " .	1894	.....	8,567 78	19,040 93	11,920 74
" " " " ..	1895	.....	6,147 63	19,325 49	11,779 12
" " " " ..	1896	.....	3,694 63	19,349 65	11,801 12
" " " " ..	1897	.....	12,665 88	18,754 17	13,128 55
" " " " .	1898	.....	13,184 68	17,992 90	12,466 51
" " " " ..	1899	.....	15,255 42	18,336 50	11,997 51
" " " " ..	1900	.....	5,448 88	18,397 58	13,995 00
" " " " ..	1901	.....	1,195 09	18,529 48	17,572 35
" " " " ..	1902	.....	19,132 80	18,832 25	17,313 02
		637,206 76			
Less proceeds of sale of piece of land.		150 00			
Total	...	*637,056 76	484,907 29	541,973 85	496,800 09

* Chambly Canal and River Richelieu.

Chambly Canal as above		$ 637,056 76
St. Ours Lock, *see* page 20.		121,537 65
		$ 758,594 41
Less amount deducted at Confederation, *see* Public Accounts, 1868, part i, page 9.		
Government expenditure prior to Confederation.		
Chambly Canal as above	$ 634,711 76	
St. Ours Lock. (*See* page 20).....	121,537 65	
	$ 756,249 41	
Returned as an asset in Public Accounts, 1868.	433,807 83	
		322,441 58
Agreeing with Public Accounts, 1902, page 4..		$ 436,152 83

S. LEONARD SHANNON
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

MURRAY CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation					
" since " "	1868		400 00		
" " " "	1869				
" " " "	1870				
" " " "	1871				
" " " "	1872				
" " " "	1873				
" " " "	1874				
" " " "	1875				
" " " "	1876				
" " " "	1877				
" " " "	1878				
" " " "	1879				
" " " "	1880				
" " " "	1881				
" " " "	1882	7,135 63			
" " " "	1883	84,071 68			
" " " "	1884	118,187 43			
" " " "	1885	148,902 66			
" " " "	1886	179,704 52			
" " " "	1887	142,563 66			
" " " "	1888	146,754 37			
" " " "	1889	215 326 46			
" " " "	1890	106,760 35		494 31	
" " " "	1891	61,260 49		5,137 03	173 53
" " " "	1892	5,964 22		5,803 48	3,505 15
" " " "	1893	30,838 79		5,499 62	5,341 34
" " " "	1894			5,667 52	5,295 57
" " " "	1895			5,354 97	5,063 49
" " " "	1896			5,409 10	5,410 33
" " " "	1897			5,526 87	3,966 41
" " " "	1898			5,799 94	4,710 23
" " " "	1899			5,073 70	3,533 68
" " " "	1900			5,613 83	2,777 60
" " " "	1901			5,175 74	1,138 15
" " " "	1902			5,254 51	6,377 19
Total	....	*1,247,470 26	400 00	65,810 62	47,292 67

* Agreeing with Public Accounts Balance Sheet, 1902, page 4.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

TRENT CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation	..	309,371 31	.....	.....	.....
" since " " ..	1868	.....	.....	.....	.....
" " " " ..	1869	.....	.....	.....	.....
" " " " ..	1870	.....	.....	.....	.....
" " " " ..	1871	.....	.....	.....	.....
" " " " ..	1872	.....	.....	.....	.....
" " " " ..	1873	.....	.....	.....	.....
" " " " ..	1874	.....	.....	.....	.....
" " " " ..	1875	.....	.....	.....	.....
" " " " ..	1876	.....	.....	.....	.....
" " " " ..	1877	.....	.....	.....	.....
" " " " ..	1878	.....	.....	.....	.....
" " " " ..	1879	.....	.....	.....	.....
" " " " ..	1880	561 50	.....	1,188 92	3,568 89
" " " " ..	1881	.....	.....	2,489 93	2,233 50
" " " " ..	1882	.....	5,836 51	2,011 92	8,115 50
" " " " ..	1883	40,767 16	9,303 66	2,235 50	3,047 42
" " " " ..	1884	120,393 91	6,198 57	2,208 64	5,264 35
" " " " ..	1885	121,382 84	.....	3,303 87	4,653 50
" " " " ..	1886	75,103 30	.....	1,639 75	5,917 88
" " " " ..	1887	179,541 63	.....	1,938 08	6,008 88
" " " " ..	1888	114,879 35	.....	1,770 29	5,151 42
" " " " ..	1889	47,592 13	29,677 92	3,242 05	5,935 94
" " " " ..	1890	58,644 50	11,522 65	3,450 99	730 55
" " " " ..	1891	9,826 49	3,164 81	3,803 66	4,888 98
" " " " ..	1892	4,457 28	6,506 97	3,695 85	4,721 85
" " " " ..	1893	5,962 47	10,838 90	3,739 86	2,087 17
" " " " ..	1894	3,412 32	20,403 93	3,785 47	4,988 59
" " " " ..	1895	53,907 70	21,143 41	4,184 18	3,374 49
" " " " ..	1896	392,976 08	6,185 75	4,349 34	3,329 97
" " " " ..	1897	486,575 70	13,880 37	4,965 39	3,497 90
" " " " ..	1898	351,273 31	8,991 54	5,034 60	4,998 80
" " " " ..	1899	166,611 49	6,179 79	5,048 72	6,454 49
" " " " ..	1900	334,583 01	8,043 39	5,131 52	9,989 26
" " " " ..	1901	284,503 89	10,494 82	5,254 51	13,075 89
" " " " ..	1902	449,075 45	26,165 93	5,575 52	14,984 88
Total	.....	3,611,402 82*	204,538 92	80,048 56	127,020 10

* Total expenditure on Capital Account as above..... $ 3,611,402 82
LESS—Expenditure prior to Confederation.....$ 309,371 31
" Year 1880 ..... 561 50
309,932 81

Agreeing with Public Accounts Balance Sheet, 1902, page 4.....$ 3,301,470 01

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

TAY CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure since Confederation.	1868				
" " "	1869				
" " "	1870				
" "	1871				
" " "	1872				
" " "	1873				
" " "	1874				
" " "	1875				
" " "	1876				
" " "	1877				
" " "	1878				
" " "	1879				
" " "	1880				
" " "	1881				
" " "	1882		748 65		
" " "	1883	4,831 80			
" " "	1884	50,878 12			
" " "	1885	92,473 97			
" " "	1886	65,561 51			
" " "	1887	49,617 92			
" " "	1888	54,166 57			
" " "	1889	89,486 18			
" " "	1890	22,226 23		*	*
" " "	1891	17,114 78		*	*
" " "	1892	29,771 65		*	*
" " "	1893			*	*
" " "	1894			*	*
" " "	1895			*	*
" " "	1896			*	*
" " "	1897	10,720 50		*	*
" " "	1898			*	*
" " "	1899			*	*
" " "	1900	2,750 00		*	*
" " "	1901			*	*
" " "	1902			*	*
Total		†489,599 23	748 65	*	*

* Included in Rideau Canal.
† Agreeing with Public Accounts, 1902, page 4.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

SAULT STE. MARIE CANAL.

—	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure since Confederation.	1868				
" " "	1869				
" " "	1870				
" " "	1871				
" " "	1872		949 35		
" " "	1873				
" " "	1874				
" " "	1875				
" " "	1876				
" " "	1877				
" " "	1878				
" " "	1879				
" " "	1880				
" " "	1881				
" " "	1882				
" " "	1883				
" " "	1884				
" " "	1885				
" " "	1886				
" " "	1887				
" " "	1888	8,145 06			
" " "	1889	34,018 95			
" " "	1890	176,568 55			
" " "	1891	325,336 33			
" " "	1892	341,474 31			
" " "	1893	589,801 25			
" " "	1894	1,316,529 29			
" " "	1895	466,151 50		3,432 73	
" " "	1896	189,986 59		16,074 70	2,650 17
" " "	1897	209,561 82		15,381 59	7,671 79
" " "	1898	21,004 56		14,389 92	8,172 09
" " "	1899	63,935 48		13,840 24	6,564 40
" " "	1900	27,157 98		13,901 40	13,219 87
" " "	1901	323,353 93	48 39	13,730 93	10,289 18
" " "	1902	122,505 73		15,920 80	14,839 71
Total		*4 215,531 33	997 74	106,672 31	63,407 21

* Agreeing with Public Accounts, 1902, page 4.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS.
OTTAWA, September 30, 1902.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Con.*

SOULANGES CANAL.

——	Year ending June 30.	Capital.	Renewals Chargeable to Income.	Staff.	Repairs.
		$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation	...	.....	.....	.....	.....
" since " ..	1868	.....	.....	.....	.....
" " " ..	1869	.....	.....	.....	.....
" " " ..	1870	.....	.....	.....	.....
" " " ..	1871	.....	.....	.....	.....
" " " ..	1872	.....	.....	.....	.....
" " " ..	1873	.....	.....	.....	.....
" " " ..	1874	.....	.....	.....	.....
" " " ..	1875	.....	.....	.....	.....
" " " ..	1876	.....	.....	.....	.....
" " " ..	1877	.....	.....	.....	.....
" " " ..	1878	.....	.....	.....	.....
" " " ..	1879	.....	.....	.....	.....
" " " ..	1880	.....	.....	.....	.....
" " " ..	1881	.....	.....	.....	.....
" " " ..	1882	.....	.....	.....	.....
" " " ..	1883	.....	.....	.....	.....
" " " ..	1884	.....	.....	.....	.....
" " " ..	1885	.....	.....	.....	.....
" " " ..	1886	.....	.....	.....	.....
" " " ..	1887	.....	.....	.....	.....
" " " ..	1888	.....	.....	.....	.....
" " " ..	1889	.....	.....	.....	.....
" " " ..	1890	.....	.....	.....	.....
" " " ..	1891	.....	.....	.....	.....
" " " .	1892	54,235 76	.....	.....	.....
" " " ..	1893	210,336 24	.....	.....	.....
" " " ..	1894	723,380 95	.....	.....	.....
" " " ..	1895	752,016 53	.....	.....	.....
" " " ..	1896	535,939 07	.....	.....	.....
" " " ..	1897	363,126 06	.....	.....	.....
" " " ..	1898	1,016,401 00	.....	.....	.....
" " " ..	1899	1,442,824 22	.....	.....	.....
" " "	1900	693,806 24	.....	6,711 84	5,000 00
" " " ..	1901	462,626 36	115 00	25,154 78	5,888 77
" " " ..	1902	235,021 79	.....	22,672 50	2,267 13
Total.....	.....	*6,489,714 22	115 00	54,539 12	13,155 90

* Included in total cost of St. Lawrence River and Canals, *see* part ii, page 9.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT showing amount expended on Construction and Enlargement of Canals, to June 30, 1902.

Canal.	Construction.	Enlargement.	Total.
	$ cts.	$ cts.	$ cts.
St. Peters	248,762 84	399,784 30	648,547 14
Lachine	2,589,532 85	8,533,204 35	11,122,737 20
Beauharnois	1,636,690 26		1,636,690 26
St. Lawrence River and Canals	18,422 85	2,687,553 97	2,705,976 82
Lake St. Louis		280,750 49	280,750 49
Lake St. Francis		70,906 71	70,906 71
Cornwall	1,945,624 73	4,939,840 43	6,885,465 16
Williamsburg. Farran's Point		840,014 66	9,217,971 57
Williamsburg. Galops		4,950,695 24	
Williamsburg. Rapide Plat		2,104,119 50	
Williamsburg. Williamsburg	1,320,655 54	2,486 63	
Welland	7,693,824 03	16,624,513 79	24,318,337 82
St. Anne's	134,456 51	1,035,759 12	1,170,215 63
*Carillon and Grenville	63,053 64	4,119,039 32	4,182,092 96
Culbute	382,776 46		382,776 46
Rideau	4,084,323 37		4,084,323 37
St. Ours	121,537 65		121,537 65
Chambly	637,056 76		637,056 76
Murray	1,247,470 26		1,247,470 26
Trent	3,611,402 82		3,611,402 82
Tay	489,599 23		489,599 23
Sault Ste. Marie	4,215,531 33		4,215,531 33
Soulanges	6,489,714 22		6,489,714 22
	36,930,435 35	46,588,668 51	83,519,103 86

*Construction by Imperial Government not included, records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

*RECAPITULATION—EXPENDITURE on Canals, also showing Revenue received.

——	Year ending June 30.	Capital.	Income.	Staff.	Repairs.	Revenue received.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation, including Imperial Government		20,593,866 13	98,378 46			
Government expenditure since Confederation	1868	33,784 06	95,347 79	113,084 50	101,646 44	403,879 19
" "	1869	126,898 20	55 00	116,069 76	118,579 31	400,263 32
" "	1870		90,355 96	120,403 02	150,176 70	414,687 02
" "	1871		116,429 54	135,040 81	140,467 52	488,538 76
" "	1872	255,645 75	33,289 27	124,137 09	152,086 25	466,847 52
" "	1873	256,547 27	127,369 55	148,581 18	186,573 13	486,433 26
" "	1874	1,189,591 91	51,037 05	167,194 40	213,613 86	510,755 99
" "	1875	1,714,830 37	479 00	168,401 21	203,226 85	414,979 59
" "	1876	2,388,733 46	810 75	178,411 80	190,578 45	390,337 04
" "	1877	4,131,374 30	22 30	179,661 40	138,448 51	390,857 37
" "	1878	3,843,338 62		187,521 31	122,251 60	373,814 17
" "	1879	3,064,098 61		191,892 44	115,349 99	337,675 13
" "	1880	2,123,366 34		195,039 33	147,167 52	341,598 14
" "	1881	2,075,891 65	7,246 69	197,573 62	154,653 63	361,558 17
" "	1882	1,593,174 09	55,025 03	224,572 61	187,399 02	325,231 54
" "	1883	1,763,001 97	62,503 14	269,415 01	178,617 86	361,604 01
" "	1884	1,577,295 42	60,993 99	280,657 29	192,219 38	372,561 69
" "	1885	1,504,621 47	58,297 59	280,226 20	201,708 47	321,289 47
" "	1886	1,333,324 80	31,984 02	282,323 63	198,251 97	328,977 43
" "	1887	1,783,698 16	65,983 06	285,172 62	198,888 84	321,784 88
" "	1888	1,033,118 34	120,561 59	292,458 76	201,928 93	317,902 04
" "	1889	972,918 43	162,015 49	301,040 23	240,261 36	333,188 90
" "	1890	1,026,364 24	146,853 54	290,516 63	176,089 00	354,816 92
" "	1891	1,318,092 15	165,843 87	294,562 12	204,768 45	349,431 90
" "	1892	1,437,149 30	194,129 61	293,115 58	231,089 54	324,475 24
" "	1893	2,069,573 30	196,185 84	291,588 97	204,759 39	357,089 87
" "	1894	3,027,164 19	109,216 33	294,146 54	179,630 13	387,788 97
" "	1895	2,452,273 65	216,057 58	281,477 04	164,033 71	339,890 49
" "	1896	2,258,778 97	85,820 49	292,121 05	209,321 60	339,538 72
" "	1897	2,348,636 91	101,205 74	287,970 36	178,385 47	384,780 53
" "	1898	3,207,249 79	82,400 55	280,872 44	203,478 86	407,652 81
" "	1899	3,899,877 31	82,205 60	280,628 57	202,312 36	369,044 38
" "	1900	2,639,564 93	120,653 93	292,609 24	227,626 97	322,642 86
" "	1901	2,360,699 89	135,500 57	314,095 04	262,876 07	315,425 69
" "	1902	2,114,689 88	213,044 91	317,838 61	263,768 27	300,413 68
Total	...	83,519,233 86	3,087,303 83	8,250,720 21	6,442,225 41	13,017,756 69

*This does not include expenditure which has been charged to Canals,—General—but amounts expended on specified canals.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

HYDRAULIC AND OTHER RENTS.

Balances due July 1, 1901.	Accrued during the year ended June 30, 1902.	Totals.	—	Abatement.	Paid into hands of the Collectors.	Balances due June 30, 1902.	Totals.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
31,264 51	12,678 76	43,943 27	Welland Canal	22 93	10,984 26	32,936 08	43,943 27
2,392 60	1,003 57	3,396 17	Williamsburg Canal		824 09	2,259 58	3,396 17
2,832 50	5,372 00	8,204 50	Cornwall "		5,130 00	3,074 50	8,204 50
9,866 50	4,937 67	14,804 17	Beauharnois "		2,822 50	11,920 84	14,804 17
17,210 81	30,485 34	47,696 15	Lachine "	312 50	31,305 34	16,390 81	47,696 15
426 84	149 00	575 84	Chambly "		75 00	500 84	575 84
2,581 56	3,359 35	5,940 91	Rideau "	60 83	2,911 00	3,029 91	5,940 91
145 00	114 50	259 50	Trent Valley "		32 50	227 00	259 50
5 00	70 00	75 00	Sault Ste. Marie Canal		75 00		75 00
4,031 00	1,729 17	5,760 17	Carillon and Grenville Canal		216 17	5,544 00	5,760 17
4 00		4 00	Sundry Canals			4 00	4 00
	3,000 00	3,000 00	Soulanges "		3,000 00		3,000 00
70,760 32	62,899 36	133,659 68	Totals	396 26	57,375 86	75,887 56	133,659 68

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals
Ottawa, September 30, 1902.

REVENUE STATEMENT.

Canal Revenue.				Total Canal Revenue Accrued.	Hydraulic and Other Rents, &c.	Total.	Collection Divisions.	Deposited to the Credit of the Receiver General.		Total.	Cost of Staff, Repairs and Offices of Collection chargeable to Revenue.
Tolls.	Wharfage and Storage.	Fines.	Other Receipts.					On Account Canal Revenue.	On Account Hydraulic Rents.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
							Welland Canal				163,175 25
72,502 76	8 86			72,511 62	767 00	73,278 62	Port Colborne	72,511 62	767 00	73,278 62	3,405 55
21,961 99		25 00	121 48	22,108 47	1,180 00	23,288 47	Port Dalhousie	22,108 47	1,180 00	23,288 47	2,293 40
408 45			2 68	411 13	226 00	637 13	Dunnville	411 13	226 00	637 13	777 45
244 78		10 00	2 38	257 16	8,806 26	9,063 42	St. Catharines	257 16	8,806 26	9,063 42	210 00
23 35				23 35	5 00	28 35	Chippawa	23 35	5 00	28 35	139 25
95,141 33	8 86	35 00	126 54	95,311 73	10,984 26	106,295 99	Totals	95,311 73	10,984 26	106,295 99	170,000 90
							St. Lawrence Canals				223,841 75
9,490 57		12 50		9,503 07	3,000 00	12,503 07	Coteau Landing	9,503 07	3,000 00	12,503 07	1,517 27
226 17				226 17	2,822 50	3,048 67	Beauharnois	226 17	2,822 50	3,048 67	962 40
32,801 28		5 00		32,806 28	5,130 00	37,936 28	Cornwall	32,806 28	5,130 00	37,936 28	1,758 08
1,164 41		25 00		1,189 41	824 09	2,013 50	Cardinal	1,189 41	824 09	2,013 50	1,020 66
3,496 95	7 53	10 00	715 70	4,230 18	50 00	4,280 18	Lachine	4,230 18	50 00	4,280 18	2,226 07
24,181 15	1,596 88		4,384 54	30,162 57	31,255 34	61,417 91	Montreal	30,162 57	31,255 34	61,417 91	7,857 40
11,937 15				11,937 15		11,937 15	Kingston	11,937 15		11,937 15	694 75
83,297 68	1,604 41	52 50	5,100 24	90,054 83	43,081 93	133,136 76	Totals	90,054 83	43,081 93	133,136 76	239,878 38
							Chambly Canal				39,543 22
11,007 28		10 00		11,017 28		11,017 28	Chambly	11,017 28		11,017 28	1,651 00
12,460 37				12,460 37	75 00	12,535 37	St. John's	12,460 37	75 00	12,535 37	1,722 30
507 39				507 39		507 39	St. Ours	507 39		507 39	618 25
23,975 04		10 00		23,985 04	75 00	24,060 04	Totals	23,985 04	75 00	24,060 04	43,534 77
							Ottawa Canals				38,498 78
17,700 27				17,700 27		17,700 27	Ottawa	17,700 27		17,700 27	2,625 93
5,461 09			8 00	5,469 09	193 17	5,662 26	Grenville	5,469 09	193 17	5,662 26	475 99
41 74				41 74	23 00	64 74	Carillon	41 74	23 00	64 74	685 38
1,145 36				1,145 36		1,145 36	St. Anne's Lock	1,145 36		1,145 36	788 04
24,348 46			8 00	24,356 46	216 17	24,572 63	Totals	24,356 46	216 17	24,572 63	43,974 12

							Rideau Canal				66,153 52
2,759 96	23 90	5 00	164 00	2,952 86	2,605 15	5,558 01	Ottawa	2,952 86	2,605 15	5,558 01	
990 41			23 00	1,013 41	230 00	1,243 41	Kingston Mills	1,013 41	230 00	1,243 41	456 40
790 71				790 71	75 85	866 56	Smith's Falls	790 71	75 85	866 56	345 45
4,541 08	23 90	5 00	187 00	4,756 98	2,911 00	7,667 98	Totals	4,756 98	2,911 00	7,667 98	66,955 37
3,447 26				3,447 26		3,447 26	*St. Peter's Canal*	3,447 26		3,447 26	3,214 25 201 75
							Totals				3,416 00
							Murray Canal				12,279 70
							Brighton	1,012 41		1,012 41	390 70
1,012 41				1,012 41		1,012 41	Totals				12,670 40
							Trent Valley Canal				20,560 40
106 81				106 81	1 00	107 81	Burleigh	106 81	1 00	107 81	10 00
472 87			50 50	523 37		523 37	Bobcaygeon	523 37		523 37	28 69
99 90				99 90		99 90	Fenelon Falls	99 90		99 90	
24 25				24 25		24 25	Hastings	24 25		24 25	10 00
372 28				372 28	31 50	403 78	Peterborough	372 28	31 50	403 78	37 17
103 35				103 35		103 35	Buckhorn	103 35		103 35	15 00
1,179 46			50 50	1,229 96	32 50	1,262 46	Totals	1,229 96	32 50	1,262 46	20,661 26
		50 00		50 00	75 00	125 00	*Sault Ste. Marie Canal*	50 00	75 00	125 00	32,480 41
236,942 72	1,637 17	152 50	5,472 28	244,204 67	57,375 86	301,580 53		244,204 67	57,377 86	301,580 53	632,671 61
							Dredge vessels				12,569 50
							Inspection				154 45
							Department of Public Printing and Stationery				1,088 38
							General				893 59
							Grand totals				647,377 53
							Less—Refunds	1,166 85		1,166 85	
							Net Revenue	233,037 82		300,413 68	

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.)

—	Year.	Construction.	Income.	Working Expenses including Windsor Branch Ry.	Revenue received, including Windsor Branch Ry.
		$ cts.	$ cts.	$ cts.	$ cts.
Expenditure prior to Confederation		10,766,725 54			
" since "	1868	483,353 65		359,961 08	420,752 58
" " "	1869	282,615 18		387,548 47	455,022 76
" " "	1870	1,729,381 49		445,208 75	471,245 09
" " "	1871	2,916,782 13		442,993 31	565,713 52
" " "	1872	5,131,141 51		595,076 22	622,900 56
" " "	1873	5,201,450 37		1,011,892 60	703,458 26
" " "	1874	3,614,898 81		1,847,175 24	893,430 17
" " "	1875	3,426,099 55		1,532,589 62	861,593 43
" " "	1876	1,108,321 59		1,277,197 79	848,861 46
" " "	1877	1,318,352 19		1,661,673 55	1,154,445 35
" " "	1878	408,816 74		1,811,273 56	1,378,946 78
" " "	1879	226,639 19		2,010,183 22	1,294,099 69
" " "	1880	2,048,014 60		1,607,956 70	1,520,310 45
" " "	1881	608,732 80		1,780,353 53	1,777,856 76
" " "	1882	585,568 79		2,080,592 37	2,100,315 85
" " "	1883	1,616,632 96		2,383,477 20	2,395,034 99
" " "	1884	1,405,377 52		2,366,719 95	2,376,666 19
" " "	1885	1,195,363 08		2,460,229 87	2,392,605 00
" " "	1886	544,958 17		2,508,473 10	2,406,858 88
" " "	1887	823,070 86		2,854,158 91	2,621,337 41
" " "	1888	742,203 09		3,300,481 94	2,937,337 40
" " "	1889	675,228 13		3,174,785 19	2,923,736 46
" " "	1890	365,246 48		3,500,455 80	2,958,243 38
" " "	1891	79,929 34		3,691,273 65	3,007,630 51
" " "	1892	168,101 77		3,458,891 39	2,978,950 82
" " "	1893	228,984 79		3,062,207 45	3,099,815 20
" " "	1894	166,362 43		2,999,317 07	3,020,485 74
" " "	1895	327,034 51		2,964,940 98	2,979,795 59
" " "	1896	259,105 23		3,029,304 08	2,994,201 93
" " "	1897	145,142 00		2,936,789 71	2,906,631 25
" " "	1898	252,367 20	70,000 00	3,275,830 14	3,154,896 49
" " "	1899	1,081,929 94	210,000 00	3,478,559 30	3,775,558 08
" " "	1900	1,796,348 29		4,444,296 25	4,599,423 14
" " "	1901	3,633,836 57		5,477,285 30	5,019,497 76
" " "	1902	4,665,590 80		5,596,939 57	5,720,990 50
Total		*60,009,707 29	280,000 00	85,810,092 86	79,338,649 43

* Including $296,872.90 charged to 'Consolidated Fund.'

Total cost of construction as above ..... $ 60,009,707 29

Less amounts transferred from Capital to Consolidated Fund as follows:—

	Nova Scotia Ry.	European and North American Ry.	
1868	$ 16,800 99	$ 11,302 89	
1870	34,403 45	1,749 21	
1871	50,405 69	.....	
1873	106,899 59	75,311 08	
	$ 208,509 72	$ 88,363 18	
		208,509 72	
			296,872 90
			$ 59,712,834 39
Cape Breton Railway, page 35			3,860,679 14
Oxford and New Glasgow Railway, page 36			1,949,063 21
Eastern Extension Railway, page 33			1,324,042 81
Montreal and European Short Line Railway, page 37			333,942 72
Drummond County Railway, page 41			1,464,000 00
Total capital cost of Intercolonial Railway system			$ 68,644,562 27
Governor General's car 'Victoria'			1,290 31
Agreeing with Public Accounts, 1901-02, page 4			$ 68,645,852 58

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

EASTERN EXTENSION RAILWAY.

——	Year.	Capital.	Working Expenses.	Revenue received.
		$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation				
" since "	1868			
" " "	1869			
" " "	1870			
" " "	1871			
" " "	1872			
" " "	1873			
" " "	1874			
" " "	1875			
" " "	1876			
" " "	1877			
" " "	1878			
" " "	1879			
" " "	1880			
" " "	1881			
" " "	1882			
" " "	1883			
" " "	1884	1,284,311 97	10,033 77	30,767 66
" " "	1885	2,055 92	78,273 65	73,050 01
" " "	1886	183 79	94,756 06	66,893 11
" " "	1887		94 254 04	64,107 10
" " "	1888		90,954 73	70,552 20
" " "	1889	34.235 73	90,719 04	72,436 65
" " "	1890		79,102 77	84,658 95
" " "	1891	3,255 40	*	†
" " "	1892		*	†
" " "	1893		*	†
" " "	1894		*	†
" " "	1895		*	†
" " "	1896		*	†
" " "	1897		*	†
" " "	1898		*	†
" " "	1899		*	†
" " "	1900		*	†
" " "	1901		*	†
" " "	1902		*	†
Total	....	‡ 1,324,042 81	538,094 06	462,465 68

* Included in Intercolonial Railway expenses. † Included in Intercolonial Railway revenue.
‡ Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

CARLETON BRANCH RAILWAY.

	Year.	Capital.	Working Expenses.	Revenue received.
		$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation				
" since " "	1868			
" " "	1869			
" " "	1870			
" " "	1871			
" " "	1872			
" " "	1873			
" " "	1874			
" " "	1875			
" " "	1876			
" " "	1877			
" " "	1878			
" " "	1879			
" " "	1880			
" " "	1881			
" " "	1882			
" " "	1883			
" " "	1884			
" " "	1885			
" " "	1886	85,610 69		
" " "	1887	2,299 62		
" " "	1888	500 17		
" " "	1889			
" " "	1890			
" " "	1891			
" " "	1892			
" " "	1893			
" " "	1894			
" " "	1895			
" " "	1896			
" " "	1897			
" " "	1898			
" " "	1899			
" " "	1900			
" " "	1901			
" " "	1902			
Total		*88,410 48		

* 56 Victoria, cap. 6, transferred the Carleton Branch Railway to the city of St. John, N. B., for the sum of $40,000, which sum was paid in March, 1893, to the Receiver General.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

CAPE BRETON RAILWAY.

	Year.	Capital.	Working Expenses.
		$ cts.	$ cts.
Government expenditure prior to Confederation	1868		
" since "	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
" " "	1876		
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" " "	1883		
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" " "	1885		
" " "	1886		
" " "	1887	76,501 89	
" " "	1888	689,450 50	
" " "	1889	1,083,276 60	
" " "	1890	1,170,523 62	
" " "	1891	521,441 62	
" " "	1892	99,936 96	
" " "	1893	59,982 74	
" " "	1894	158,770 61	
" " "	1895	*	
" " "	1896	*	
" " "	1897	405 00	
" " "	1898	389 60	
" " "	1899		
" " "	1900		
" " "	1901		
" " "	1902		
Total		§3,860,679 14	†

* Included in Intercolonial Railway capital. † Included in Intercolonial Railway working expenses.
§ Included in total cost of Intercolonial Railway system, see page 22.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

OXFORD AND NEW GLASGOW.

—	Year.	Capital.	Working Expenses.
		$ cts.	$ cts.
Government expenditure prior to Confederation	1868		
" since "	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
" " "	1876		
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" " "	1883		
" " "	1884		
" " "	1885		
" " "	1886		
" " "	1887		
" " "	1888	280,932 35	
" " "	1889	840,553 57	
" " "	1890	434,074 60	
" " "	1891	220,886 39	
" " "	1892	48,745 23	
" " "	1893	7,922 80	
" " "	1894	112,382 75	
" " "	1895	*	
" " "	1896	*	
" " "	1897	3,565 52	
" " "	1898		
" " "	1899		
" " "	1900		
" " "	1901		
" " "	1902		
Total		‡ 1,949,063 21	†

* Included in Intercolonial Railway capital. † Included in Intercolonial Railway working expenses.
‡ Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

SESSIONAL PAPER No. 20

MONTREAL AND EUROPEAN SHORT LINE RAILWAY.

	Year.	Construction.	Working Expenses.
		$ cts.	$ cts.
Government expenditure prior to confederation	1868		
" since "	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
" " "	1876		
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" " "	1880		
" " "	1881		
" " "	1882		
" " "	1883		
" " "	1884		
" " "	1885	49,587 45	
" " "	1886	135,214 38	
" " "	1887	24,157 32	
" " "	1888	397 35	
" " "	1889		
" " "	1890		
" " "	1891	124,568 23	
" " "	1892		
" " "	1893		
" " "	1894	17 99	
" "	1895		
" " "	1896		
" " "	1897		
" " "	1898		
" " "	1899		
" " "	1900		
" " "	1901		
" " "	1902		
Total		*333,942 72	

* Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

PRINCE EDWARD ISLAND RAILWAY.

	Year.	Construction.	Working Expenses.	Revenue received.
		$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation		3,114,735 11		
" since "	1874		750 00	
" " "	1875	46,086 63	49,344 62	24,493 99
" " "	1876	42,546 10	219,930 43	118,060 96
" " "	1877	200,000 00	228,595 25	130,664 92
" " "	1878	6,551 86	221,599 49	135,899 60
" " "	1879	40,129 05	223,313 12	125,855 91
" " "	1880	16,539 82	164,640 55	113,851 11
" " "	1881		203,122 88	131,131 43
" " "	1882	402 03	228,259 97	137,267 54
" " "	1883	57,186 02	252,808 41	146,170 42
" " "	1884	130,663 38	236,428 13	144,504 12
" " "	1885	76,956 56	211,207 01	158,588 06
" " "	1886	4,668 33	216,744 34	155,584 36
" " "	1887	5,800 00	204,237 45	155,303 37
" " "	1888		229,639 95	158,363 62
" " "	1889		247,559 44	171,369 56
" " "	1890		266,485 85	160,971 78
" " "	1891		257,990 08	174,258 05
" " "	1892	8,300 49	289,706 38	157,442 69
" " "	1893		226,422 17	162,690 42
" " "	1894		226,891 06	158,533 83
" " "	1895		232,905 19	149,654 78
" " "	1896		225,138 56	146,476 54
" " "	1897		240,489 90	153,443 13
" " "	1898	17,541 88	231,418 74	158,950 61
" " "	1899	22,000 00	218,053 01	165,012 03
" " "	1900	53,546 02	220,931 81	174,738 73
" " "	1901	280,173 93	261,766 24	193,883 48
" " "	1902	475,997 94	270,159 97	197,999 93
Total		*4,599,825 15	6,306,540 00	4,161,164 97

* Agrees with Public Accounts Balance Sheet, 1901-1902, page 4.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

CANADIAN PACIFIC RAILWAY.

	Year.	Construction, including Subsidy of $25,000,000.	Working Expenses.	Revenue received.
		$ cts.	$ cts.	$ cts.
Government expenditure prior to Confederation...	.....	....	.....	... .
" since " ...	1868	....	....	.. . .
" " " ...	1869	.....	... .	....
" " " ...	1870	.....	....	.....
" " " ...	1871	30,148 32	....	.....
" " " ...	1872	489,428 16	....	. .....
" " " ...	1873	561,818 44	.....	..... .
" " " ...	1874	310,224 88	....	... .
" " " ...	1875	1,546,241 67	.....	... .
" " " ...	1876	3,346,567 06	... .	.....
" " " ...	1877	1,691,149 97	.....	....
" " " ...	1878	2,228,373 13	....	.....
" " " ...	1879	2,240,285 47	....	.. ..
" " " ...	1880	4,044,522 72	78,892 01	104,975 69
" " " ...	1881	4,968,503 93	236,944 98	291,498 06
" " " ...	1882	(1) 4,589,075 79	1,786 20	....
" " " ...	1883	(2) 10,033,800 04	266 09	....
" " " ...	1884	(3) 11,192,722 02	327 02	.....
" " " ...	1885	(4) 9,900,281 53	.....	.....
" " " ...	1886	(5) 3,672,584 81	.....	....
" " " ...	1887	(6) 915,057 49	... .	.....
" " " ...	1888	52,098 65	.....	.. ..
" " " ...	1889	86,716 07	.....	.....
" " " ...	1890	40,980 54	....	.....
" " " ...	1891	37,367 00	....	.. . .
" " " ...	1892	66,211 39	.....	....
" " " ...	1893	413,836 49	....	.....
" " " ...	1894	146,539 87	.....	. ...
" " " ...	1895	49,209 77	.. ..	.....
" " " ...	1896	65,669 49	.....	.....
" " " ...	1897	14,054 50	....	.. ..
" " " ...	1898	692 17	....	.....
" " " ...	1899	8,418 53	....	....
" " " ...	1900	236 11	.....	..... .
" "	1901	8,978 87	....	.....
" " ...	1902	448 70	.....	....
Total.....	...	*62,752,243 58	318,216 30	396,473 75

* Agrees with Public Accounts Balance Sheet, 1901-1902, page 8,

(1) Including... ....$ 2,210,000 00 on account subsidy.
(2) " ..... 5,323,076 60 "
(3) " .. .. 7,254,208 27 "
(4) " ..... 6,862,201 00 "
(5) " .... 2,890,427 00 "
(6) " ..... 460,087 13 "

†$25,000,000 00

† *See* also Statement No. 3, page 47, for this expenditure.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

ANNAPOLIS AND DIGBY RAILWAY.

	Year.	Capital.	Income Expenses.
		$ cts.	$ cts.
Government expenditure prior to Confederation			
" since " "	1868		
" " "	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
" " "	1876		
" " "	1877		
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" " "	1883		
" " "	1884		
" " "	1885		
" " "	1886		
" " "	1887		
" " "	1888		
" " "	1889	9,847 27	
" " "	1890	381,942 75	
" " "	1891	196,869 36	
" " "	1892	26,129 89	
" " "	1893	2,190 62	
" " "	1894	1,675 36	
" " "	1895	570 55	
" " "	1896		
" " "	1897	41,457 29	
" " "	1898		
" " "	1899		
" " "	1900		
" " "	1901		8,381 82
" " "	1902		
Total		*660,683 09	8,381 82

*Of this amount Parliament voted under 52 Vic., chap. 8, the sum of $500,000 as a subsidy to the Western Counties Railway, which is also shown in the statement of subsidies, page 47.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

DRUMMOND COUNTY RAILWAY.

——	Year.	Construction.	Working Expenses.
		$ cts.	$ cts.
Government expenditure prior to Confederation	1868		
" since "	1869		
" " "	1870		
" " "	1871		
" " "	1872		
" " "	1873		
" " "	1874		
" " "	1875		
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" " "	1898		
" " "	1899		
" " "	1900	1,459,000 00	
" " "	1901		
" " "	1902	5,000 00	
Total		*1,464,000 00	

* Included in total cost of Intercolonial Railway system, page 32.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals,
Ottawa, September 30, 1902.

YUKON TERRITORY WORKS.

(Stikine-Teslin Railway.)

	Year.	Construction.
		$ cts.
Government expenditure prior to Confederation		
" since "	1868	
" " "	1869	
" " "	1870	
" " "	1871	
" " "	1872	
" " "	1873	
" " "	1874	
" " "	1875	
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" " "	1896	
" " "	1897	
" " "	1898	
" " "	1899	
" " "	1900	
" " "	1901	
" " "	1902	283,323 55
Total		*283,323 55

* Agrees with Public Accounts, Balance Sheet, 1901-1902, page 8.

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

SESSIONAL PAPER No. 20

STATEMENT Showing Amount Expended on Capital Account on Railways.

Railways.	—	—
	$ c.	$ c.
Intercolonial	59,712,834 39	
Cape Breton	3,860,679 14	
Oxford and New Glasgow	1,949,063 21	
Eastern Extension	1,324,042 81	
Drummond County	1,464,000 00	68,310,619 55
Carleton Branch		48,410 48
Montreal and European Short Line		333,942 72
Prince Edward Island		4,599,825 15
Canadian Pacific		62,752,243 58
Annapolis and Digby		660,683 09
Governor General's car 'Victoria'		1,290 31
Yukon Territory Works (Stikine-Teslin Ry.)		283,323 55
Total		136,990,338 43
Memo re Recapitulation—Railways.		
Total cost as per statement above		136,990,338 43
Add amounts transferred from Capital to Consolidated Fund, Intercolonial Railway, see statement, page 32		296,872 90
Agreeing with total cost of construction, as per statement, page 44		137,287,211 33

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

RECAPITULATION—RAILWAYS.

——	Year.	Construction.	Working Expenses.	Revenue Received.
		$ cts.	$ cts.	$ cts.
Government Expenditure prior to Confederation	.....	13,881,460 65	.....	.....
" since " "	1868	483,353 65	359,961 08	420,752 58
" " "	1869	282,615 18	387,548 47	455,022 76
" " "	1870	1,729,381 49	445,208 75	471,245 09
" " "	1871	2,946,930 45	442,993 31	565,713 52
" " "	1872	5,620,569 67	595,076 22	622,900 56
" " "	1873	5,763,268 81	1,011,892 60	703,458 26
" " "	1874	3,925,123 69	1,847,925 24	893,430 17
" " "	1875	5,018,427 85	1,581,934 24	886,087 42
" " "	1876	4,497,434 75	1,497,128 22	966,922 42
" " "	1877	3,209,502 16	1,890,268 80	1,285,110 27
" " "	1878	2,643,741 73	2,032,873 05	1,514,846 38
" " "	1879	2,507,053 71	2,233,496 34	1,419,955 60
" " "	1880	6,109,077 14	1,851,489 26	1,739,137 25
" " "	1881	5,577,236 73	2,220,421 39	2,200,486 25
" " "	1882	5,175,046 61	2,310,638 54	2,237,583 39
" " "	1883	11,707,619 02	2,636,551 70	2,541,205 41
" " "	1884	14,013,074 89	2,613,508 87	2,551,937 97
" " "	1885	11,224,244 54	2,749,710 53	2,624,243 07
" " "	1886	4,443,220 17	2,819,973 50	2,628,336 35
" " "	1887	1,846,887 18	3,152,650 40	2,840,747 88
" " "	1888	1,765,582 11	3,621,076 62	3,166,253 22
" " "	1889	2,709,857 37	3,513,063 67	3,167,542 67
" " "	1890	2,392,767 99	3,846,044 42	3,203,874 11
" " "	1891	1,184,317 34	3,949,263 73	3,181,888 56
" " "	1892	417,425 73	3,748,597 77	3,136,393 51
" " "	1893	712,917 44	3,288,629 62	3,262,505 62
" " "	1894	585,749 01	3,226,208 13	3,179,019 57
" " "	1895	376,814 83	3,197,846 17	3,129,450 37
" " "	1896	324,774 72	3,254,442 64	3,140,678 47
" " "	1897	204,624 31	3,195,959 58	3,060,074 38
" " "	1898	270,990 85	3,507,248 88	3,313,847 10
" " "	1899	1,112,348 47	3,696,612 31	3,940,570 11
" " "	1900	3,309,130 42	4,665,228 06	4,774,161 87
" " "	1901	3,922,989 37	5,739,051 54	5,213,381 24
" " "	1902	5,430,360 99	5,861,099 54	5,918,990 43
Total	.....	*137,325,921 02	92,991,623 19	84,357,753 83

* Total amount paid on construction	$ 137,325,921 02
Less amount received from the City of St. John, N.B., as purchase of the Carleton Branch Railway.....	40,000 00
Total cost of construction	$ 137,285,921 02
Add expenditure Governor General's car 'Victoria'.....	1,290 31
Agreeing with amount expended on capital, see page 43.....	$ 137,287,211 33

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA September 30, 1902.

STATEMENT showing Miscellaneous Expenditure, yearly, by the Department of Railways and Canals.

Year ending June 30.	Chargeable to Capital.	Chargeable to Income.			Chargeable to Revenue.			Total Yearly Expenditure
	Railways.	Canals.	Railways.	General.	Canals.	Railways.	General.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1868				6,305 66	12,000 00		2,416 66	20,722 32
1869				8,367 52	12,000 00		1,000 00	21,367 52
1870				7,853 03	18,698 89		7,679 78	34,231 70
1871				34,773 72	12,018 98			46,792 70
1872				20,049 50	12,208 76			32,258 26
1873				36,891 74	12,099 44		6,889 20	55,880 38
1874				40,098 84	12,959 25		5,428 98	58,487 07
1875				35,579 24	12,047 43		5,620 17	53,246 84
1876				42,920 10	86 08		5,690 28	48,696 46
1877					51 87	43,639 97		43,691 84
1878		1,860 00			556 00		34,388 59	36,804 59
1879								
1880		2,561 55			323 16			2,884 71
1881		2,338 41			5,535 22			7,873 63
1882					9,826 23			9,826 23
1883		11,781 27			6,978 54			18,759 81
1884		7,486 62	62,256 58		8,305 41			78,048 61
1885		16,725 47	11,003 38		1,210 61			28,939 46
1886		20,323 62	10,383 59		776 30			31,483 51
1887		20,873 21	23,545 34		649 04			45,067 59
1888		34,533 07	22,898 90		5,799 83			63,231 80
1889		10,091 87	16,552 64		5,207 64			31,852 15
1890		16,426 69	50,909 74		49,550 21			116,886 64
1891		16,925 31	16,314 41		56,922 05			90,161 77
1892		6,540 49	19,062 51		65,074 07			90,677 07
1893		8,498 41	4,313 73	28,640 93	63,965 54			105,418 61
1894		4,178 85	4,855 11	15,746 31	60,265 22			85,045 49
1895		10,695 48	13,221 27	19,304 87	60,769 56			103,991 18
1896	1,290 31	10,893 40	5,271 89	25,194 21	70,340 22			112,990 03
1897		2,937 47	5,118 99	25,142 90	62,777 12		597 39	96,573 87
1898		1,719 69	8,327 96	28,042 10	56,284 42	1,400 00		95,774 17
1899		1,318 79	67,005 86	22,085 19	66,850 29			157,260 13
1900		11,873 35	33,496 99	22,802 18	58,836 57			127,609 09
1901		12,267 99	28,658 78	33,986 68	61,938 61			136,852 06
1902		3,658 23	21,752 58	34,138 50	65,770 65			125,319 96
	1,290 31	236,569 24	424,950 25	487,923 22	948,683 21	45,039 97	69,711 05	2,214,107 25

S. LEONARD SHANNON,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 30, 1902.

RECAPITULATION—RAILWAYS AND CANALS, TO JUNE 30, 1902.

Expenditure.

Chargeable to Capital Account—			
Railways, *see* Statement page 43		$136,990,338 43	
Canals " " 27		83,519,103 86	
			$220,509,442 29
Chargeable to Consolidated Fund—			
*Railway Subsidies as per Statement No. 3, page 47		27,831,830 37	
Income Account—			
Intercolonial Railway, *see* page 32	$ 280,000 00		
Add transferred from Capital, " 32	296,872 90		
Railways, *see* " 45	424,950 25		
Canals, " " 28	3,087,303 83		
" " " 45	236,509 24		
General, Railways and Canals, " 45	487,923 22		
		4,813,559 44	
Revenue Account—			
Canals—Operating and maintaining Staff, *see* page 28	$ 8,250,720 21		
Canals—Repairs, *see* page 28	6,442,225 41		
" " 45	948,683 21		
Railways—Working Expenses, *see* page 44	92,991,623 19		
" " 45	45,039 97		
General—Railways and Canals, " 45	69,711 05		
		108,748,003 04	
			141,393,392 85
Total expenditure on Railways and Canals			$361,902,835 14

EXPENDITURE AS ABOVE, SEPARATED AS BETWEEN RAILWAYS AND CANALS.

Railways.

Capital Account	136,990,338 43	
Consolidated Fund	121,870,316 68	
		258,860,655 11

Canals.

Capital Account	83,519,103 86	
Consolidated Fund	18,965,441 90	
		102,484,545 76

General, Common to both.

Consolidated Fund	557,634 27
Total expenditure on Railways and Canals	$361,902,835 14

Revenue.

Railways—Revenue received from July 1, 1867, to June 30, 1902, (for details *see* page 44)	$84,357,753 83
Canals—Revenue received from July 1, 1867, to June 30, 1902, (for details *see* page 28)	13,017,756 69
Total Revenue, Railways and Canals	$ 97,375,510 52

* This amount does not include the subsidy of $25,000,000 to the Canadian Pacific Railway, nor the amount $660,683.09 expended on the Annapolis and Digby Railway, both of which are included in Capital Account, nor the annual payment of $119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of $2,394,000 granted by 47 Vic., ch. 8 (1884) for the line between Ottawa and Quebec, which sum was transferred to the Public Debt as a liability, and is dealt with by the Finance Department, *see* Public Accounts, 1898-99, page x.

S. LEONARD SHANNON,
Accountant.

Department of Railways and Canals
Ottawa, September 30, 1902.

No. 3.

STATEMENT showing Subsidies voted for Railways as to which contracts have been entered into and payments made up to June 30, 1902.

Year.	Name of Railway.	Payments.																						Total Amount Paid to 1902.
		1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1898	Intercolonial Railway (1)	141 666			6,666 66		7,500 00																	156,666 66
1899		141 666 66			6,666 66		7,500 00																	
1900		141 666 66																						
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1898	Quebec and Saint John Railway Co. (2)	42,666	37,666	30,333	242,250	252,666 66	18,750 00	36,250 00	24,500 00	20,333 34	24,375 00	24,416 66		4,750 00										1,666,750 00
1899		42,666 66	37,666 66	30,333 33	242,250 00	252,666 66	18,750 00	36,250 00	24,500 00	20,333 34	24,375 00	24,416 66		4,750 00										
1900		42,666 66																						
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1898	Montreal Harbour (3)	150,000 00																						150,000 00
1899		150,000 00																						
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1898	Intercolonial and Western Railway Lengueuil-Napierville Junction and Quebec Railway Ontario	92,666	75,666					6,791 66	7,666 66		8,666 66	15,666 66												206,792 66
1899		92,666 66	75,666 66					6,791 66	7,666 66		8,666 66	15,666 66												
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PART III

RAILWAY SUBSIDIES

No. 1.

RAILWAY SUBSIDIES.

TABLE of per mile Cash Subsidies paid in aid of Railway Construction, showing amount of Subsidy granted for same Railways.

Number.	Name of Railway.	No. of miles built up to June 30, 1902.	No. of miles paid and provided for.	Subsidy paid and available at June 30, 1902.	Subsidy paid to June 30, 1902.	Subsidy paid to September 30, 1902.
				$ cts.	$ cts.	$ cts.
1	Albert Southern	16	16	50,460 00	50,460 00	50,460 00
2	†Atlantic and Lake Superior	Bridge.	30	96,000 00	14,800 00	14,800 00
3	†Algoma Central and Hudson Bay	77	91	412,800 00	380,624 00	380,624 00
4	Baie des Chaleurs	70	70	620,000 00	620,000 00	620,000 00
5	Beauharnois Junction	19·50	19·50	62,400 00	62,400 00	62,400 00
6	Belleville and North Hastings	6·84	6.84	21,888 00	21,888 00	21,888 00
7	Brantford, Waterloo and Lake Erie	18	18	57,600 00	57,600 00	57,600 00
8	Brockville, Westport and Sault Ste. Marie	44·50	44·50	105,200 00	105,200 00	105,200 00
9	Buctouche and Moncton	31·75	31·75	101,600 00	101,600 00	101,600 00
10	Canada Atlantic	54·05	54·05	282,355 20	282,355 20	282,355 20
11	Canada Central	120	120	1,525,250 00	1,525,250 00	1,525,250 00
12	†Canada Eastern	107	107	350,400 00	350,400 00	350,400 00
13	†Canadian Pacific	1,905	1,905	25,000,000 00	25,000,000 00	25,000,000 00
14	" (extension)*	476·55	476·55	5,568,400 00	5,084,720 00	5,144,720 00
15	†Cape Breton extension	.....	30	96,000 00	....	65,280 00
16	Caraquet	67	67	224,000 00	224,000 00	224,000 00
17	Central (of New Brunswick)	45·66	89·50	238,400 00	142,400 00	142,400 00
18	Cornwallis Valley	14	14	44,800 00	44,800 00	44,800 00
19	Columbia and Kootenay	27·75	27·75	88,800 00	88,800 00	88,800 00
20	†Canadian Northern	175·60	290	1,632,000 00	1,477,491 00	1,477,491 00
21	Cap de la Madeleine	2·32	2·32	7,424 00	7,424 00	7,424 00
22	†Coast (of Nova Scotia)	28·25	61	195,200 00	90,400 00	90,400 00
23	†Central Ontario	21	21	67,200 00	67,200 00	67,200 00
24	Cumberland	14	14	39,850 00	39,850 00	39,850 00
25	Dominion Line Co	4·80	4·80	15,360 00	15,360 00	15,360 00
26	Dominion Coal Co	27·44	27·44	87,808 00	87,808 00	87,808 00
27	†Drummond Counties	133·03	135·60	423,936 00	423,936 00	423,936 00
28	†East Richelieu Valley	21·86	21·86	69,952 00	69,952 00	69,952 00
29	Elgin, Petitcodiac and Havelock	12	12	38,400 00	38,400 00	38,400 00
30	Erie and Huron	30	30	96,000 00	96,000 00	96,000 00
31	Esquimalt and Nanaimo	71	71	750,000 00	750,000 00	750,000 00
32	Fredericton and St. Mary's Bridge Co	1·33	1·33	30,000 00	30,000 00	30,000 00
33	Grand Trunk, Georgian Bay and Lake Erie	12·42	12·42	39,744 00	39,744 00	39,744 00
34	Grand Trunk	Bridge.	Bridge.	500,000 00	500,000 00	500,000 00
35	Great Eastern	12·50	12·50	40,345 00	40,345 00	40,345 00
36	†Great Northern	140·42	143·59	572,511 11	520,011 11	520,011 11
37	Guelph Junction	15·25	15·25	46,000 00	46,000 00	46,000 00
38	†Gulf Shore	16·78	16·78	53,699 20	53,699 20	53,699 20
	Carried forward	3,840·60	4,111·33	39,651,782 51	38,550,917 51	38,676,197 51

TABLE of per mile Cash Subsidies granted and paid in aid of Railway Construction, &c.—*Continued.*

Number.	Name of Railway.	No. of miles built up to June 30, 1902.	No of miles paid and provided for.	Subsidy paid and available at June 30, 1902.	Subsidy paid to June 30, 1902.	Subsidy paid to September 30, 1902.
				$ cts.	$ cts.	$ cts.
	Brought forward	3,840·60	4,111·33	39,651,782 51	38,550,917 51	38,676,197 51
39	Harvey Branch	3	3	5,553 57	5,553 57	5,553 57
40	Hereford	48·50	48·50	155,200 00	155,200 00	155,200 00
41	Irondale, Bancroft & Ottawa	45	50	160,000 00	144,000 00	144,000 00
42	International	49	49	156,800 00	156,800 00	156,800 00
43	†Inverness and Richmond	61	98	313,600 00	219,600 00	219,600 00
44	Joggins	12	12	37,500 00	37,500 00	37,500 00
45	Kingston and Pembroke	15	15	48,000 00	48,000 00	48,000 00
46	Kingston, Napanee and Western	61·35	61·35	208,732 80	208,732 80	208,732 80
47	L'Assomption	3·50	3·50	11,200 00	11,200 00	11,200 00
48	†Lake Erie and Detroit River	126·90	128·05	475,851 00	475,851 00	475,851 00
49	Lake Temiscamingue Colonization	45·84	45·84	310,335 95	310,335 95	310,335 95
50	Leamington and Lake St. Clair	16	16	51,200 00	51,200 00	51,200 00
51	Lotbinière and Mégantic	30	30	96,000 00	96,000 00	96,000 00
52	Montreal and Sorel (now South Shore)	61·50	126·67	507,322 00	213,047 76	213,047 76
53	Montreal and Lake Champlain	83	83	103,600 00	103,600 00	103,600 00
54	Montreal and Western	70	70	361,270 00	361,270 00	361,270 00
55	Montreal and Lake Maskinongé	12·90	12·90	41,280 00	41,280 00	41,280 00
56	Montreal and Ottawa	60	60	192,000 00	192,000 00	192,000 00
57	†Montreal and Province Line	18·3	18·3	58,560 00	58,560 00	58,560 00
58	Montfort Colonization	32·20	32·20	167,440 00	167,440 00	167,440 00
59	†Massawippi Valley	1·68	1·68	5,376 00	5,376 00	5,376 00
60	†Midland (Nova Scotia)	57·18	58	185,600 00	170,264 00	170,264 00
61	Nakusp and Slocan	36·80	36·80	117,760 00	117,760 00	117,760 00
62	New Brunswick and P. E. Island	35·45	35·45	113,440 00	113,440 00	113,440 00
63	New Glasgow Iron and Coal Co	12·45	12·45	39,840 00	39,840 00	39,840 00
64	Northern Pacific Junction	110	110	1,320,000 00	1,320,000 00	1,320,000 00
65	Nova Scotia Central	73·50	73·50	235,200 00	235,200 00	235,200 00
66	Ontario, Belmont and Northern	9·60	9·60	30,720 00	30,720 00	30,720 00
67	Ontario and Quebec	61·25	61·25	196,000 00	196,000 00	196,000 00
68	Orford Mountain	26·50	26·50	84,800 00	84,800 00	84,800 00
69	Oshawa Railway and Navigation Co.	7	7	22,400 00	22,400 00	22,400 00
70	†Ottawa, Northern and Western (formerly Ottawa and Gat. Valley)	55·28	55·28	292,320 00	292,320 00	292,320 00
71	†Ottawa and New York	53·87	53·87	262,384 00	262,384 00	262,384 00
72	†Ottawa Arnprior and Parry Sound	159·58	159·58	779,712 00	779,712 00	779,712 00
73	Parry Sound Colonization	47·75	47·75	152,800 00	152,800 00	152,800 00
74	Pontiac and Pacific Junction	70	70	193,578 00	193,578 00	193,578 00
75	†Phillipsburg Junction	7·41	7·41	23,712 00	23,712 00	23,712 00
76	Pontiac and Renfrew	4·25	4·25	13,600 00	13,600 00	13,600 00
77	Pontiac & Pacific & Ottawa & Gat'n.	Bridge.	Bridge.	212,500 00	212,500 00	212,500 00
78	†Pembroke Southern	20	20	64,000 00	64,000 00	64,000 00
79	Port Arthur, Duluth and Renfrew	84·75	84·75	271,200 00	271,200 00	271,200 00
80	Quebec Central	74·86	74·86	348,342 00	348,342 00	348,342 00
81	Quebec Bridge Co.	Bridge.	Bridge.	1,000,000 00	242,000 00	350,840 00
82	Quebec and Lake St. John	245·85	245·85	1,006,743 50	1,006,743 50	1,006,743 50
83	Quebec, Montmorency and Charlevoix	30	30	96,000 00	96,000 00	96,000 00
84	†Restigouche and Western	10	40	78,930 00	46,930 00	46,930 00
85	Shuswap and Okanagan	51	51	163,200 00	163,200 00	163,200 00
86	South Norfolk	17	17	54,400 00	54,400 00	54,400 00
87	St. Catharines and Niagara Central	12	12	38,400 00	38,400 00	38,400 00
88	St. Clair Frontier Tunnel	2·23	2·23	375,000 00	375,000 00	375,000 00
89	St. Lawrence and Lower Laurentian	38·85	38·85	217,600 00	217,600 00	217,600 00
90	St. Louis, Richibucto and Buctouche	7	7	22,400 00	22,400 00	22,400 00
91	†St. Lawrence and Adirondack	33·51	33·51	149,481 60	149,481 60	149,481 60
92	†St. Mary River	30	30	75,000 00	75,000 00	75,000 00
93	St. Stephen and Milltown	4·64	4·64	14,848 00	14,848 00	14,848 00
	Carried forward	6,186·83	6,596·70	51,361,394 93	49,060,039 69	49,294,159 69

TABLE of per mile Cash Subsidies granted and paid in aid of Railway Construction, &c.—*Continued.*

Number.	Name of Railway.	No. of miles built up to June 30, 1902.	No. of miles paid and provided for.	Subsidy paid and available at June 30, 1902.	Subsidy paid to June 30, 1902.	Subsidy paid to September 30, 1902.
				$ cts.	$ cts.	$ cts.
	Brought forward	6,186·83	6,596·70	51,361,394 93	49,060,039 69	49,294,159 69
94	Temiscouata	112·95	112·95	645,950 00	645,950 00	645,950 00
95	†Thousand Islands.....	5·19	5·19	29,840 00	29,840 00	29,840 00
96	†Tilsonburg, Lake Erie and Pacific..	19·41	19·41	69,271 48	69,271 48	69,271 48
97	Tobique Valley.....	27·88	27·88	134,016 00	134,016 00	134,016 00
98	Toronto, Grey and Bruce.....	4·58	4·58	14,656 00	14,656 00	14,656 00
99	†United Counties...	59	59	188,816 00	188,816 00	188,816 00
100	Waterloo Junction..	10·25	10·25	32,800 00	32,800 00	32,800 00
101	Western Counties	20	20	500,000 00	500,000 00	500,000 00
102	West Ontario Pacific.....	18·75	18·75	60,000 00	60,000 00	60,000 00
103	†York and Carleton.....	5·73	5·73	18,336 00	18,336 00	18,336 00
	Total	6,470·57	6,880·44	53,055,080 41	‡50,753,725 17	50,987,845 17

‡ Add subsidy of used rails as per statement, part iii, page 7, $152,305.20, and Atlantic and North-Western, $2,425,800, less subsidy Canadian Pacific Railway, main line, $25,000,000, and Western Counties Railway, $500,000, which will then agree with statement of subsidies in part ii, page 47, viz., $27,831,830.37.

* Includes the mileage of the North Shore Railway, 160 miles.

† By 60 61 Vic., cap. 4, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, and 1 Edward VII., cap. 7, a subsidy was authorized on certain mileage of this railway, specified in the Act of Parliament, of $3,200 per mile and a further subsidy beyond the sum of $3,200 per mile, of 50 per cent on so much of the *average cost* of the said specified mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile.

The amount of certain of the subsidies authorized by Parliament, given in this statement, includes the determined portion of the subsidies under 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, and 1 Edward VII, cap. 7, viz. : The amount produced by the $3,200 per mile, but the other portion is now an undetermined amount, and therefore cannot be shown here.

The following is the mileage of certain of the railways shown in this statement and subsidized under 60-61 Vic., cap. 4, 62-63 Vic., cap. 7, and 63-64 Vic., cap. 8 :—

	Miles.
Ottawa, Arnprior and Parry Sound	56
Phillipsburg Junction	0·66
St. Lawrence and Adirondack	13·50
Tilsonburg, Lake Erie and Pacific	3·50
United Counties	1
Great Northern	44
Gulf Shore	5·50
St. Stephen's and Milltown	1·14
Drummond County	42·50
Coast (of Nova Scotia)	61
Ottawa and New York	53·87
Restigouche and Western	40
East Richelieu Valley	24
Ottawa and Gatineau	86
Pembroke and Southern	40
Massawippi Valley	2·50
Inverness and Richmond	93
Canadian Northern	490
Central Ontario	41
Midland (Nova Scotia)	58
Pontiac and Pacific Junction	9
Canada Eastern	2·25
Canadian Pacific (Extension)	70

STATEMENT showing Railways receiving Cash Subsidies of fixed amounts, payable Annually or Semi-annually for fixed periods of years.

No.	Name of Railway.	Miles Subsidized.	Amount of Instalment.	Amount paid up to June 30, 1901.
				$ cts.
1	International (Atlantic and North-west) Railway Co.	252	$93,300 per ½ year for 20 years.	2,425,800
2	Kingston, Smith's Falls and Ottawa Railway Co	56	$3,136 " 21 "	Nil.
	Total	308		2,425,800

STATEMENT showing Railways aided by the Grant of Loans.

No.	Name of Railway.	Amount of Loans authorized.	Amount loaned.
		$	$ cts.
1	Albert Railway Co.	15,000	14,725 56
2	Fredericton and St. Mary's Bridge Co.	300,000	300,000 00
3	St. John Bridge and Railway Extension Co.	500,000	433,900 00
	Total	815,000	748,625 56

STATEMENT showing Railways subsidized by the Grant of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Subsidy on value of Rails.	Subsidy on used Rails paid.
			$ cts.	$ cts.
1	Central Railway Co. of New Brunswick	4,052	83,612 54	83,612 54
2	Elgin, Petitcodiac and Havelock Ry. Co	2,201	44,252 82	44,252 82
3	Chatham Branch Railway Co.	958	24,439 84	24,439 84
	Total	7,211	152,305 20	152,305 20

STATEMENT showing Railways aided by the Loan of used Iron Rails valued at the amount set forth.

No.	Name of Railway.	Tons of used Rails.	Value of used Rails loaned.	Remarks.
			$ cts.	
1	Kent Northern Railway Co.	2,549	58,334 27	By 51 Victoria, chapter 3, these used rails will be granted as a subsidy (the section of road to be first laid with new steel rails weighing not less than 50 lbs. per lin. yard and after an O. C. had been passsd authorizing transfer).
2	Halifax Cotton Co.	233	4,335 00	
3	Steel Company of Canada	597	11,964 66	
4	Albert Railway Company	726	14,665 45	
	Total	4,105	89,299 38	

STATEMENT showing Railways subsidized by Grants of Lands.

No.	Act authorizing Subsidy.	Name of Railway Company.	Mileage Subsidized.	Acres granted per Mile.	Total Area granted.
1	48-49 Vic., c. 60; 50-51 Vic., c. 60; 52 Vic., c. 2	Alberta Railway and Coal Co.—Main line, Dunmore to Lethbridge	109·50	6,400	700,800
2	52 Vic., c. 4; 52 Vic., c. 3	Alberta Railway and Coal Co.-From Lethbridge to the International Boundary	64·62	6,400	413,568
3	53 Vic., c. 4	Calgary and Edmonton Railway	340·00	6,400	2,176,000
4	44 Vic., c. 1	Canadian Pacific Railway —Main line			18,206,986
5	53 Vic., c. 4	C. P. R.—Deloraine and Napinka Branch.	18·01	6,400	115,264
6	53 Vic., c. 4	C. P. R.—Glenboro' and Souris Branch	45·24	6,400	289,536
7	53 Vic., c. 4; 54 Vic., c. 10	C. P. R.—Kenmay and Estevan Branch	156·86	6,400	1,003,904
8	57-58 Vic., c. 6	C. P. R,—Pipestone Branch	31·30	6,400	200,320
9	49 Vic., c. 11	Great North-west Central Railway	50·00	6,400	320,000
10	48-49 Vic., c. 60	Manitoba and North-western Railway—Main line	430·00	6,400	2,918,400
11	49 Vic., c. 11	Manitoba and North-western Railway—Branch from Biscarth	26·00	6,000	
12	53 Vic., c. 4	Manitoba and South-eastern Railway Co.	98·00	6,400	627,200
13	54-55 Vic., c. 10; 48-49 Vic., c. 10	Manitoba South-western Colonization Co.	218·25	6,400	1,396,800
14	48-49 Vic., c. 60; 50-51 Vic., c. 23	Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Co	253·96	6,400	1,625,344
15	52 Vic., c. 4; 54 Vic., c. 9	Red Deer Valley Railway and Coal Co	55·00	6,400	352,000
16	57-58 Vic., c. 6	Saskatchewan and Western Railway Co.	15·47	6,400	99,008
17	62-63 Vic., c. 57	Canadian Northern Railway	1,025·00	Div. A., 6,400; do B., 12,800; do C., 6,400	9,280,000
			2,937·21		39,725,130

NOTE.—By 62-63 Victoria (Session of 1899), chapter 57, the Lake Manitoba Railway and Colonization Company and the Winnipeg Great Northern Railway were amalgamated under the title of the Canadian Northern Railway, all the rights of the two companies being vested in the new company.

No. 2

LIST OF RAILWAY SUBSIDY ACTS PASSED IN EACH YEAR.

NOTE.—The marginal number opposite each subsidy has reference to the alphabetical list in the Deputy Minister's report showing the action taken in cases where a contract for work has been made with any company.

By the Acts of Parliament below specified, authority has been placed in the hands of the Governor in Council to grant, upon certain conditions, aid towards the construction of various lines of railway throughout the Dominion, as follows, namely :—

By the Acts of 45 Vic., cap. 14, 1882 *(Assented to 17th May, 1882)* :—

1. For a railway from Gravenhurst to Callander, both in the province of Ontario, a subsidy not exceeding $6,000 per mile, nor exceeding in the whole $660,000

2. For a railway from St. Raymond to Lake St. John, both in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 384,000

3. For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, or between them, to Edmundston, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 240,000

4. For a railway from Oxford to New Glasgow, both in the province of Nova Scotia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 224,000

"The said subsidies to be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to complete the said railways respectively, within a reasonable time, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in an agreement to be made by the company with the Government, and which the Government is empowered to make, and to be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, such proportion to be established by the report of the said Minister; provided always, that the granting of such bonuses or subsidies shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting therewith, as the Governor in Council may determine."

By the special Act 45 Vic., cap. 55, 1882 *(Assented to 17th May, 1882* :—

5. A subsidy authorized in favour of "The Chignecto Marine Transport Railway Company," provided that they construct and thereafter maintain and operate a ship railway, to be approved by the Government, across the Isthmus of Chignecto, from the Gulf of St. Lawrence to the Bay of Fundy, per year, for twenty-five years..... $150,000

By the Act 46 Vic., cap. 25, 1883 *(Assented to 25th May, 1883)* :—

6. To the Baie des Chaleurs Railway Company, for 100 miles of their railway, from Métapediac, on the Intercolonial Railway, to Paspebiac, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 320,000

7. To the Caraquet Railway Company, for 30 miles of their railway, from a point near Bathurst to Caraquet, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $115,200

8. To the Gatineau Valley Railway Company, for the first 50-mile section of their railway, from Hull station, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 160,000

9. To the Great American and European Short Line Railway Company, for 80 miles of their railway, from Canso to Louisburg or Sydney, in the province of Nova Scotia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 256,000

10. To the International Railway Company, for 49 miles of their railway, from Sherbrooke, in the province of Quebec, to the international boundary line, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 156,800

11. To the Northern and Western Railway Company, for 32 miles of their railway, from the Intercolonial Railway, near the Miramichi, to Moran's, near Demphy village, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 102,400

12. To the Montreal and Western Railway Company, for the first 50-mile section of their railway, out of St. Jérôme, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 160,000

13. To the Napanee, Tamworth and Quebec Railway Company, for 28 miles of their railway, from Napanee to Tamworth, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 89,600

14. To the Quebec and Lake St. John Railway Company, for 25 miles of their railway, from St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 80,000

In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.

15. For a railway from the International Railway at Petitcodiac to Havelock Corner, in the province of New Brunswick, 12 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 38,400

16. For a railway from Gravenhurst to Callander, 110 miles, a subsidy not exceeding $6,000 per mile, nor exceeding in the whole 660,000

In addition to the subsidy granted by the Act forty-fifth Victoria, chapter fourteen.

"The nine subsidies first mentioned to be granted to the companies hereinbefore named respectively; and the two subsidies last mentioned to be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to complete the said railways, respectively; and all the eleven lines above mentioned, and also the lines of railway in respect of which it is provided by the Act of forty-fifth Victoria, chapter fourteen, that subsidies may be granted, shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years from and after the passing of this Act, to be fixed by Order in Council, and according to descriptions and specifications to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made by each company with the Government, and which the Government is empowered to make; and all the said subsidies authorized by this Act, respectively, to be paid out of the Consolidated Revenue Fund of Canada by instalments, on the completion of each section of not less than ten miles of railway, proportionate to the value of the portion so completed in comparison with the whole work undertaken, to be established by the report of the said Minister; Provided always, that the granting of such subsidies shall be subject to such conditions for securing such running powers

or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized as the Governor in Council may determine."

By the special Act 46 Vic., cap. 26, 1883 *(Assented to 25th May, 1883)*:—

17. An advance authorized in favour of the "St. John Bridge and Railway Extension Company," to enable them to build a railway bridge across the River St. John, N.B., with railway connection with the Intercolonial, such advance to be secured by a mortgage on their entire property, not to exceed 80 per cent of the expenditure on the work, nor a total sum of ..... $ 500,000

By the Act 47 Vic., cap. 8, 1884 *(Assented to 19th April, 1884)*:—

18. To the Government of the province of Quebec, in consideration of their having constructed the railway from Quebec to Ottawa, forming a connecting line between the Atlantic and Pacific coasts via the Intercolonial and Canadian Pacific Railways, and being as such a work of national and not merely provincial utility, a subsidy not exceeding $6,000 per mile for the portion between Quebec and Montreal, 159 miles, nor exceeding in the whole 954,000

19. And for the portion between Montreal and Ottawa, 120 miles, $12,000 per mile, nor exceeding in the whole 1,440,000

20. For the construction of a line of railway connecting Montreal with the harbours of St. John and Halifax by the shortest and best practicable route, after the report of competent engineers, a subsidy not exceeding $170,000 per annum, for fifteen years, or a guarantee of a like sum for a like period as interest on bonds of the company undertaking the work.

21. For the construction of a line of railway from Oxford station, on the Intercolonial Railway, to Sydney or Louisburg, a subsidy not exceeding $30,000 per annum for fifteen years or a guarantee of a like sum for a like period as interest on the bonds of the company undertaking the work, in addition to the subsidies previously granted, and also a lease or transfer to such company of the Eastern Extension Railway, from New Glasgow to Canso, with its present equipment.

22. To the Quebec Central Railway Company, for a line of railway from Beauce Junction to the international boundary line, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 211,200

23. For the extension of the Canadian Pacific Railway, from its terminus at St. Martin's Junction, near Montreal, or some other point on the Canadian Pacific Railway, to the harbour of Quebec, in such manner as may be approved by the Governor in Council, a subsidy not exceeding $6,000 per mile, nor exceeding in the whole 960,000

24. To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria branch of the Midland Railway to the village of Bancroft, in the township of Dungannon, county of Hastings, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 160,000

25. To the Pontiac Pacific Junction Railway, for a line of railway from Hull or Aylmer to Pembroke, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 272,000

26. To the Gatineau Railway Company, for a line of railway from Kazuabazua to Le Désert, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 160,000

27. To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth to Bogart and Bridgewater, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 70,400

28. To the Montreal and Western Railway Company, for a line of railway from the end of the line subsidized in the now last session of Parliament, towards Le Désert, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $160,000

29. To the Northern and Western Railway Company, for a line of railway from Fredericton to the Miramichi River, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole (instead of the subsidy proposed in 1883) 128,000

30. To the Erie and Huron Railway Company, for a line of railway from Wallaceburg to Sarnia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

31. To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Perth, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 262,400

32. To the Kingston and Pembroke Railway Company, for a line of railway from Mississippi to Renfrew, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000

33. To the Great Northern Railway Company, for that portion of their railway between St. Jérôme and New Glasgow, in the county of Terrebonne, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 32,000

34. For a line of railway and bridge between the Jacques Cartier Union Railway Junction with the Canadian Pacific Railway and St. Martin's Junction connecting the Jacques Cartier Union Railway with the North Shore Railway proper, a subsidy not exceeding in the whole 200,000

35. For a line of railway from Richibucto to St. Louis, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 22,400

36. For a line of railway from Hopewell to Alma, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 51,200

37. For a line of railway from St. Andrew's to Lachute, in the county of Argenteuil, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 22,400

38. For a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 217,600

39. For a line of railway from Annapolis to Digby, in the province of Nova Scotia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 64,000

40. For a line of the Central Railway, from the head of Grand Lake to the Intercolonial Railway between Sussex and St. John, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 128,000

41. To the Caraquet Railway Company, for the extension of their line of railway from Caraquet to Shippegan Harbour, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 76,800

42. For a branch of the Intercolonial Railway, from Metapediac eastward towards Paspebiac, twenty miles, in the province of Quebec, a sum not exceeding in the whole 300,000

43. For a branch of the Intercolonial Railway, from Derby Station to Indiantown, fourteen miles, a sum not exceeding in the whole 140,000

" The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively ; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are

granted shall be commenced within two years from the first day of July next and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, except the line mentioned in the fourth section of this Act,* which shall be commenced within one year, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister. The subsidies to the province of Quebec shall be capitalized, and the interest shall be payable at such time and in such manner as the Government of Canada shall agree upon with the Government of the said province. The two subsidies last mentioned in the list are for works to be constructed by the Government of Canada.

"Provided, always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine."

By the special Act 47 Vic., cap. 6, 1884 *(Assented to 19th April, 1884)*:

44. Relating to an agreement with the province of British Columbia, authority was given, *inter alia*, for the grant of a subsidy to the "Esquimalt and Nanaimo Railway Company" in aid of the construction of a line of railway and telegraph between the points named; such subsidy to be in lands *en bloc* on Vancouver Island, the boundaries being fixed by the Act, and in money $750,000

By the Act 48-49 Vic., cap. 59, 1885 *(Assented to 20th July, 1885)*:

45. To the Ottawa, Waddington and New York Railway and Bridge Company, for a line of railway from Ottawa to Waddington, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 166,400

46. To the New Brunswick and Prince Edward Island Railway Company, for a line of railway from Sackville to the Straits of Northumberland, at or near Cape Tormentine, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 118,400

47. To the Montreal and Sorel Railway Company, for a line of railway from St. Lambert to Sorel, a subsidy not exceeding $1,600 per mile, nor exceeding in the whole 72,000

48. To the Brockville, Westport and Sault Ste. Marie Railway Company, for a line of railway from Brockville to Westport, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 128,000

49. To the Quebec and Lake St. John Railway Company, for a line of railway from its junction on the North Shore Railway to St. Raymond, upon condition of the company extending their road to a point 50 miles north of St. Raymond, a subsidy not exceeding $3,200 per mile nor exceeding in the whole 96,000

50. To the Northern and Western Railway Company, for a line of railway from the northern end of the 40 miles subsidized between Fredericton and the Miramichi River by 47 Victoria, chapter 8, to Boiestown, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 19,200

* The extension of the Canadian Pacific Railway from its terminus at St. Martin's Junction, or some other point on the said railway to the harbour of Quebec.

51. To the Montreal and Champlain Junction Railway Company, for a line of railway from Brosseau's to Dundee, a subsidy not exceeding $500 per mile, nor exceeding in the whole $30,000

52. To the Thunder Bay Colonization Railway Company, for a line of railway from the Murillo station of the Canadian Pacific Railway to the east end of Whitefish Lake, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 92,000

53. To the Central Ontario Railway Company, for a line of railway from Coe Hill or Rathbun, to Bancroft, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000

54. To the Belleville and North Hastings Railway Company, for a line of railway from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, a subsidy not exceeding $1,500 per mile, nor exceeding in the whole 10,500

55. For a line of railway from Long Sault to the foot of Lake Temiscamingue, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 25,600

56. For a line of railway from a point on the Canada Southern Railway near Comber, to Lake Erie, at or near the village of Leamington, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.... 44,800

57. To the Napanee, Tamworth and Quebec Railway Company, for a line of railway from Tamworth towards Bogart and Bridgewater, 16 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy of..... 70,000

58. To the Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of 62 miles, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, a subsidy of.... 320,000

59. For a line of railway from the Grand Piles, on the River St. Maurice, to its junction with Lake St. John Railway, a distance of about 50 miles, in lieu of the subsidy granted by 47 Vic., chap. 8, for a line of railway from the Grand Piles, on the River St. Maurice, to Lake Edward, a subsidy of..... 217,600

60. To the Canada Atlantic Railway Company, for a line of railway from Valleyfield to a point one and a half miles west of Johnston's, a subsidy not exceeding $1,600 per mile, and from one and a half miles west of Johnston's to Lacolle; also from the present terminus at Ottawa, to the Chaudiere Falls, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

61. For a line of railway from Indiantown via the Miramichi Valley, to its junction with the Northern and Western Railway at or near Boiestown, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 140,800

" The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies, respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways, respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions, specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister.

"Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connected with those so subsidized, as the Governor in Council may determine."

By the Act 48-49 Vic., cap. 58, 1885 *(Assented to 20th July, 1885)*:—

62. For a railway from a point on the Intercolonial Railway at Rivière du Loup or Rivière Ouelle, in the province of Quebec, to Edmundston, in the province of New Brunswick, a subsidy not exceeding two thousand eight hundred dollars per mile for seventy-five miles, and six thousand dollars per mile for eight miles, nor exceeding in the whole two hundred and fifty-eight thousand dollars; the said subsidy to be in addition to the subsidy authorized to be granted in aid of the construction of the said railway by the Act forty-fifth Victoria, chapter fourteen, and constituting with the subsidy so authorized, a subsidy not exceeding in the whole four hundred and ninety-eight thousand dollars, and to be granted for the said railway upon the terms and conditions specified in the said Act, and payable out of the Consolidated Revenue Fund of Canada; and for the purpose of incorporating the persons undertaking the construction of the said railway and those who shall be associated with them in the undertaking, the Governor may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, which shall be similar to such of the franchises, privileges and powers granted to railway companies during the present session as the Governor shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

63. For a line of railway from the south bank of the St. Lawrence river, opposite or near Montreal, to the harbours of St. Andrew's, St. John and Halifax via Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton and Salisbury,, a subsidy not exceeding eighty thousand dollars per annum for twenty years, forming in the whole, together with the subsidy authorized by the Act forty-seventh Victoria, chapter eight, for a line of railway connecting Montreal with the said harbours of St. John and Halifax by the shortest and best practicable route, which the line above described is found to be, a subsidy not exceeding two hundred and fifty thousand dollars per annum, the whole of which shall be paid in aid of the construction of such a line of railway for a period of twenty years, or a guarantee bond of a like sum for a like period as interest on the bonds of the company undertaking the work; the said subsidy to be so granted upon the terms and conditions of and payable out of the Consolidated Revenue Fund in the manner specified in the said last mentioned Act in respect of the subsidy thereby authorized in aid of the said line of railway.

64. The Governor in Council may grant a further subsidy as an aid towards procuring free access as hereinafter described for the trains and traffic of the Canadian Pacific Railway Company from St. Martin's Junction, near Montreal, or from some other point on their railway to be selected by the said company, to the harbour of Quebec, in such a manner as shall be approved by the Governor in Council, that is to say: an additional subsidy not exceeding three hundred and forty thousand dollars, constituting, together with the subsidy authorized by the said last mentioned Act, to aid in procuring the extension of

the Canadian Pacific Railway to Quebec, and the subsidy also thereby authorized to aid in constructing a line connecting the Canadian Pacific Railway at the Jacques Cartier Union Junction with the North Shore Railway proper (which subsidies shall be applicable to the said first mentioned purpose) a sum not exceeding in the whole the sum of one million five hundred thousand dollars, payable out of the Consolidated Revenue Fund of Canada.

The said Act further provided as follows in relation to this matter:—

"If it should be expedient so to do in order to facilitate such access, the Governor in Council may acquire the North Shore Railway, and may apply the said sum of one million five hundred thousand dollars, or any part thereof, in aid of such acquisition and upon such acquisition may transfer and convey or lease the said railway to the Canadian Pacific Railway Company, subject to such obligation as the Government shall have assumed in acquiring it."

By the Act 49 Vic., cap. 10, 1886 (*Assented to 2nd June, 1886*):—

65. For a railway from a point at or near Moncton, to Buctouche, in the province of New Brunswick, thirty miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 96,000

66. For a railway from Ingersoll via London to Chatham, in the province of Ontario, eighty miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 256,000

67. To the Northern and Western Railway Company, for ten miles of their railway, intervening between the termini of the portions of their railway for which subsidies are already granted, the one from Fredericton and the other from Indiantown, and an extension of two miles down to deep water at Chatham, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 32,000

68. To the Caraquet Railway Company, for ten miles of their railway, from the end of the present subsidized portion at Lower Caraquet to Shippegan, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000

69. To the Lake Erie, Essex and Detroit River Railway Company, for thirty-seven miles of their railway, from Windsor to Leamington, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 118,400

70. To the Thunder Bay Colonization Railway Company, for fifty-six miles of their railway, from the end of the present subsidized section to a point near Crooked Lake, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 179,200

71. To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, on the line of the Northern Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 128,000

72. For a railway from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, eighteen miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 57,600

73. For a railway from Hereford to the International Railway, in the township of Eaton, in the province of Quebec, thirty-four miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 108,800

74. For a railway from St. Félix to Lake Maskinongé, parish of St. Gabriel in the province of Quebec, ten miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000

75. For a railway from Glenannan to Wingham, in the province of Ontario, five miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 16,000

76. For a railway from a point at or near the McCann Station, on the Intercolonial Railway, to the Joggins, onCumberland Basin, in the province of Nova Scotia, twelve miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 38,400

77. For a railway from L'Assomption to L'Epiphanie, in the province of Quebec, three miles and a half, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 11,200

78. To the Montreal and Western Railway Company, for seventy miles of their railway from St. Jérôme, north-westerly towards Désert, in the province of Quebec, a subsidy of $5,161 per mile, in lieu of the subsidies granted by 46 Vic., chap. 25, and 47 Vic., chap. 8, not exceeding in the whole..... 361,270

79. For a railway from St. Andrew's to the Canadian Pacific Railway at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, in lieu of the subsidy granted by 47 Vic., chap. 8, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 22,400

80. To the Canada Atlantic Railway Company, for twelve miles of their railway from Clark's Island to Valleyfield, and from Lacolle, in the province of Quebec, to the international boundary, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400

81. For a railway from Truro to Newport, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 156,800

82. To the Quebec and Lake St. John Railway Company, for ninety-five miles of their railway, from a point fifty miles north of St. Raymond to Lake St. John, in the province of Quebec, a subsidy not exceeding $1,961 per mile, nor exceeding in the whole (in addition to the subsidy granted by 45 Victoria, chapter 14, and 46 Victoria, chapter 25, of $3,200 per mile)..... 186,295

83. To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400

84. For the construction of wharfs and landing stages on the line of the railway from Long Sault to the foot of Lake Temiscamingue, a subsidy of..... 6,000

85. To the Gananoque, Perth and James Bay Railway Company, seventeen miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 54,400

86. For a railway from St. Eustache to St. Placide, county of Two Mountains, eighteen miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 57,600

87. For a railway from a point on the Intercolonial Railway through the Stewiacke Valley, on the line which will afford facilities of communication with the Iron Mines, Spring Side, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 80,000

88. For a railway from Yamaska to the River St. Francis, in the province of Quebec, ten miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000

89. For a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, in the province of New Brunswick, twenty-eight miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 89,600

90. For a railway from Fredericton to the village of Prince William, in the province of New Brunswick, twenty-two miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 70,400

91. For a railway from a point on the Intercolonial Railway near Newcastle or via Douglastown to a point on the River Miramichi, opposite the town of Chatham, in the province of New Brunswick, six miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. $19,200

92. For a railway from a point on the Canadian Pacific Railway to Eganville, in the province of Ontario, twenty-two miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 70,400

93. To the Belleville and North Hastings Railway Company, for seven miles of their railway, from the village of Madoc to the junction with the Central Ontario Railway at Eldorado, in the province of Ontario, a subsidy (in addition to the subsidy of $1,500 per mile granted by 48-49 Victoria, chapter 59), not exceeding $1,700 per mile, nor exceeding in the whole..... 11,900

94. To the Napanee, Tamworth and Quebec Railway Company, for eighteen miles of their railway from Tamworth to Tweed, in lieu of the subsidy granted by 48-49 Victoria, chapter 59, a subsidy of..... 70,000

95. To the Albert Railway Company, for their railway from Salisbury to Hopewell, in the province of New Brunswick, which is a feeder to the Intercolonial Railway, in the form of a loan, repayable at such time and secured in such manner as the Governor in Council determines, a subsidy of..... 15,000

"The subsidies hereinbefore mentioned as to be granted to the companies named for that purpose shall be granted to such companies respectively; the other subsidies shall be granted to such companies as shall be approved by the Governor in Council as having established, to his satisfaction, their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies have been granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall be so constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in the agreement to be made in each case by the company to the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council, and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister: Provided always, that the granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements, and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council may determine."

By section 2 of this Act authority was given for the grant of a charter by the Governor in Council for the purpose of constructing a railway from Long Sault to the foot of Lake Temiscamingue.

By the Act 50-51 Vic., cap. 24, 1887 *(Assented to 23rd June, 1887).*

96. To the St. Catharines and Niagara Railway Company, for twelve miles of their railway from the city of St. Catharines to the bridge over the Niagara River, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 38,400

97. To the Vaudreuil and Prescott Railway Company, for thirty miles of their railway from Vaudreuil towards Hawkesbury, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

98. To the Richmond Hill Junction Railway Company, for five miles of their railway from Richmond Hill Junction, on the Northern Railway of Canada, to Richmond Hill village, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 16,000

99. To the Drummond County Railway Company, for thirty miles of their railway from Drummondville towards Nicolet, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

100. To the Joggins Railway Company, for one and a quarter miles of their railway extending from the southern end of the portion subsidized by the Act 49 Victoria, chapter 10, to the wharfs, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 4,000

101. To the Moncton and Buctouche Railway Company, for two miles of their railway from the west end of the portion subsidized by the Act 49 Victoria, chapter 10, to Moncton, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 6,400

102. To the Beauharnois Junction Railway Company, for thirty miles of their railway from St. Martin's towards St. Anicet, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

103. To the Harvey Branch Railway Company, for three miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 9,600

104. To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway from the town of Brantford to the village of Hagarsville or the village of Waterford, or some intermediate point on the Canada Southern Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 57,600

105. To the Guelph Junction Railway Company, for sixteen miles of their railway from its junction with the Canadian Pacific Railway to the town of Guelph, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 51,200

106. To the Massawippi Railway Company, for ten miles of their railway from a point on the Atlantic and North-western Railway near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000

107. To the Napanee, Tamworth and Quebec Railway Company, for four miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to Tweed, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 12,800

108. To the Dominion Lime Company, for seven miles of their railway from a point on the Quebec Central Railway, in the township of Dudswell, to the Dudswell Lime Company's quarries, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 22,400

109. To the South Norfolk Railway Company, for seventeen miles of their railway from Port Rowan to the town of Simcoe, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 54,400

110. To the Jacques Cartier Union Railway Company, extending and completing their railway, a subsidy of..... 20,000

111. For a line of railway from Mount Forest to Walkerton, twenty-four miles in length, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 76,800

112. To the Oshawa Railway and Navigation Company, for seven miles of their railway from Port Oshawa towards Raglan, a subsidy not exceeding $3,200 per mile. nor exceeding in the whole..... 22,400

113. To the Saguenay and Lake St. John Railway Company, for thirty miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

114. To the Great Eastern Railway Company, for thirty miles of their railway from the River St. Francis to the Arthabaska Railway, at St. Grégoire station, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $96,000

115. To the Ontario and Pacific Railway Company, for six miles of their railway from the northern end of the portion subsidized by the Act 47 Victoria, chapter 8, to the town of Perth, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 19,200

116. To the Caraquet Railway Company, for seven miles of their railway from Lower Caraquet to Shippegan, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding in the whole .. 32,000

117. To the St. Lawrence and Lower Laurentian and Saguenay Railway Company, for the section of this railway from Grand Piles, on the St. Maurice River, to its junction with the Quebec and Lake St. John Railway, in lieu of the subsidy granted by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, for a line of railway from Grand Piles, on the St. Maurice River, to its junction with the Lake St. John Railway, a distance of about fifty miles, a subsidy of 217,600

118. To the St. John Valley and River du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 70,400

119. To the Lake Temiscamingue Railway Company, for four short sections of railway, in all about two miles in length, to overcome the rapids of the Ottawa River, known as "La Mi-Charge," "La Cave," "Les "Erables," and "La Montagne," and for the construction of wharfs and landing stages at these rapids, to connect the Canadian Pacific Railway at Mattawa with Lake Temiscamingue by steamboats, railways and other works (in lieu of a portion two miles in length, out of the eight miles of railway subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, under which about six miles of railway have already been built from the foot of Long Sault proper to the foot of Lake Temiscamingue, and in lieu also of the subsidy granted by the Act 49 Victoria, chapter 10), a subsidy of 12,400

120. To the Carillon and Grenville Railway Company, for twelve miles of their railway from St. Eustache to Sault au Récollet, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 38,400

121. To the Minudie Branch Railway Company, for five and a half miles of their railway from its junction with the Joggins Railway, near the River Hébert railway bridge, to the village of Minudie, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 17,600

122. To the Lake Temiscamingue Colonization and Railway Company, for ten and a half miles of their railway from the Long Sault to Lake Kippewa, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 33,600

123. To the Leamington and St. Clair Railway Company, for two miles of their railway from the north end of the section subsidized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter 59, to the village of Comber, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 6,400

124. To the Cumberland Railway and Coal Company for fourteen miles of their railway from a point on the Spring Hill and Parrsboro' Railway, near Spring Hill, to a point on the railway between Oxford and New Glasgow, near Oxford village, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 44,800

125. To the Montreal and Champlain Junction Railway Company, a subsidy of..... $ 64,000

126. To the Quebec and Lake St. John Railway Company, for nine miles of their railway, the distance which the previous subsidies granted are short of covering from the city of Quebec to Lake St. John, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 28,800

127. To the Temiscouata Railway Company, for thirty miles of a branch of their railway from Edmundston towards the St. Francis River, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 96,000

128. To the Cornwallis Valley Railway Company, for thirteen miles of their railway from Kentville to Kingsport, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 41,600

129. To the Nova Scotia Central Railway Company, for thirty-four miles of their railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 108,800

130. To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Perth Centre station, on the New Brunswick Railway, to a point near Plaister Rock Island, a subsidy of..... 89,600

131. For a railway from Woodstock towards Centreville, twenty miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 64,000

132. For a railway bridge over the St. Lawrence River, at Coteau Landing on the line of the Canada Atlantic Railway, a subsidy of fifteen per cent on the value of the structure, not to exceed..... 180,000

133. To the Lake Erie, Essex and Detroit River Railway Company, for twenty-seven miles of their railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding..... 118,400

"For the purpose of granting corporate powers to persons or companies undertaking the construction of railways or parts of railways, mentioned in the next preceding section, for the construction of which no corporate powers exist at the time of the passing of this Act, the Governor in Council may grant to them, under such corporate name as he shall deem expedient, a charter conferring upon them the franchises, privileges and powers requisite for the said purposes, as the Governor in Council shall deem most useful or appropriate to the said undertaking; and such charter being published in the *Canada Gazette*, with any Order or Orders in Council relating to it, shall have force and effect as if it were an Act of the Parliament of Canada.

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; the other subsidies, including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct their railway, shall be granted to such companies as shall be approved by the Governor in Council, as having established, to his satisfaction, their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized, except as regards the subsidy for the bridge over the

St Lawrence River, upon which shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

"The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"Notwithstanding anything contained in the Act forty-fifth Victoria, chapter fourteen, or in the Act forty-sixth Victoria, chapter twenty-five, the balances of the sums granted for a railway from St. Raymond to Lake St. John and to the Quebec and Lake St. John Railway Company by the said Acts respectively, which have not yet been paid by the Government, may be paid at any time within one year from the passing of this Act, subject to the conditions in the said Act contained."

By the Act 51 Vic., cap. 3, 1888 (*Assented to 22nd May, 1888*):—

134. To the Ottawa and Parry Sound Railway Company, for 22 miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by 49 Victoria, chapter 10, for a railway from a point on the Canadian Pacific Railway to Eganville, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 70,400 00

135. To the Nova Scotia Central Railway Company, for 46 miles of their railway, in the province of Nova Scotia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 147,200 00

136. To the Montreal and Champlain Junction Railway Company, for 3 miles of their railway from the end of the present subsidized section, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 9,600 00

137. To the Massawippi Junction Railway Company, for their railway from a point on the Atlantic and North-west Railway, near the village of Magog, to Ayer's Flat station, on the Massawippi Valley Railway, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of 32,000 00

138. To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of $31,500, to be paid out monthly as the work progresses, upon the certificate of the Chief Engineer of Government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken, and for three miles of their railway extending from a point three miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $9,600, provided that the entire work subsidized upon this railway shall be completed within four years from the passing of this Act, the subsidy granted by this Act not to exceed in the whole 41,100 00

139. To the Port Arthur, Duluth and Western Railway Company, for 84¾ miles of their railway from Port Arthur towards Gun Flint Lake, in lieu of the subsidies granted by 48-49 Victoria, chapter 59, and 49 Victoria, chapter 10, for the construction of a railway from Murillo Station to Crooked Lake, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 271,200 00

140. To the Quebec and Lake St. John Railway Company, for 30 miles of their railway from Lake St. John towards Chicoutimi, or from Chicoutimi towards Lake St. John, being a transfer made at the request of the Saguenay and Lake St. John Railway Company of the subsidy granted to them by 50-51 Victoria, chapter 24, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000 00

141. To the Temiscouata Railway Company, for 20 miles of their branch railway from Edmundston towards the St. Francis River, in the province of Quebec, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy of $100,000 00

142. To the Quebec Central Railway Company, for the construction and completion of a line of railway from St. Francis Station to a point on the Atlantic and North-west Railway near Moose River, 90 miles, in lieu of the balance of the subsidy, unearned, granted by 47 Victoria, chapter 8, a subsidy not exceeding $21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of 288,000 00

143. To the Central Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 4,052 tons of used iron rails and fastenings, loaned to the St. Martin's and Upham Railway Company, now forming part of the Central Railway, which rails and fastenings stand in the Public Accounts as an asset for..... 83,612 54

144. To the Elgin, Petitcodiac and Havelock Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,201 tons of used iron rails and fastenings loaned to the Elgin Branch Railway, now forming part of the Elgin, Petitcodiac and Havelock Railway, which rails and fastenings stand in the Public Accounts as an asset for 44,252 82

145. To the Kent Northern Railway Company of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 2,549 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... 58,334 27

146. To the Halifax Cotton Company of Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 233 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... 4,335 00

147. To the Steel Company of Canada, in Nova Scotia, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company of 597 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... 11,964 66

148. To the Albert Railway Company of New Brunswick, a grant as a subsidy (the section of road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 726 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... 14,665 45

149. To the Chatham Branch Railway of New Brunswick, a grant as subsidy (the road to be first laid with new steel rails weighing not less than 56 pounds per lineal yard, and after an Order in Council has been passed authorizing their transfer to the company) of 958 tons of used iron rails and fastenings loaned to the company, which rails and fastenings stand in the Public Accounts as an asset for..... $24,439 84

"All the lines, for the construction of which subsidies are granted, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and also the said subsidies respectively, payable in cash, shall be payable out of the Consolidated Revenue Fund of Canada by instalments, on the completion to the satisfaction of the Minister of Railways and Canals of each section of the railway of not less than 10 miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon completion of the work subsidized."

By the Act 52 Vic., chap. 3, 1889. *(Assented to 2nd May, 1889)*:—

150. To the Ontario and Pacific Railway Company, for a line of railway from Cornwall to Ottawa, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $172,400 00

151. To the Ottawa and Gatineau Railway Company, for a line of railway from Hull station towards Le Désert, a distance of sixty-two miles, a subsidy not exceeding in the whole..... 320,000 00

152. To the Cap Rouge and St. Lawrence Railway Company, for twelve miles of their railway, from Lorette via Cap Rouge to Quebec, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400 00

153. To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the line of the Northern and Pacific Junction Railway, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 128,000 00

154. For a railway from St. Andrew's to the Canadian Pacific Railway, at or at any point east of the town of Lachute, in the county of Argenteuil, in the province of Quebec, seven miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 22,400 00

155. For a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, forty-nine miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 156,800 00

156. For a line of the Central Railway from the head of Grand Lake to the Intercolonial Railway, in the province of New Brunswick, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 128,000 00

157. To the Albert Southern Railway Company, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole..... 31,771 43

158. To the Baie des Chaleurs Railway Company, the balance remaining unpaid of the subsidy mentioned in the Act 49th Victoria, chapter 17, not exceeding in the whole..... 244,500 00

159. To the Irondale, Bancroft and Ottawa Railway Company, for a line of railway from the Victoria Branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47th Victoria, chapter 8, not exceeding in the whole..... $145,000 00

160. To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Act 45th Victoria, chapter 14, and 46th Victoria, chapter 25, not exceeding in the whole.. 35,000 00

161. For a railway from some point on the Joggins Railway, near the Hébert River, to Young's Mills, in the province of Nova Scotia, a distance of five miles, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole..... 16,000 00

162. To the St. Clair Frontier Tunnel Company, for the construction of a tunnel under the St. Clair River, from a point at or near Sarnia, to a point at or near Port Huron, a subsidy not exceeding in the whole..... 375,000 00

163. To the Pontiac and Renfrew Railway Company, for six miles of their railway from the north bank of the Ottawa River, opposite Braeside, or from Bristol Iron Mines, to the Pontiac Pacific Junction Railway, near the Quyon River, in the province of Quebec, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole..... 19,200 00

164. To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the St. Charles River, to or near to Cap Tourmente, in the province of Quebec, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole..... 96,000 00

165. To the Fredericton and St. Mary's Bridge Company, for a bridge over the St. John River, at Fredericton, in the province of New Brunswick, a subsidy not exceeding in the whole..... 30,000 00

166. To the Napanee, Tamworth and Quebec Railway Company, for seven miles of their railway, from a point at or near Yarker to a point at or near Harrowsmith, and to a company for three miles of railway from a point at or near Harrowsmith to a point at or near Sydenham, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole..... 32,000 00

167. For a railway from a point near Sicamous, on the Canadian Pacific Railway, to a point on Lake Okanagan for fifty-one miles of such railway, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole..... 163,200 00

168. To the Cornwallis Valley Railway Company, for one mile of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Kingsport, in the province of Nova Scotia, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 3,200 00

169. To the Lake Témiscamingue Colonization and Railway Company, for fifteen miles of their railway, from Mattawa station on the Canadian Pacific Railway, towards the Long Sault, or from the Long Sault towards the said Mattawa station, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

170. To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of Saint-Michel des Saints, on the River Mattawin, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

171. To the Kingston, Smith's Falls and Ottawa Railway Company, for twenty miles of their railway, from the city of Kingston towards Smith's Falls, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 64,000 00

172. To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway, from Woodstock to Hamilton, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 158,400 00

173. For a railway from St. Césaire to St. Paul d'Abbotsford, in the province of Quebec, five miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 16,000 00

174. To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000 00

175. To the Drummond County Railway Company, for four and one-half miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, to Ball's Wharf, on the St. Lawrence River, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 14,400 00

176. To the St. Catharines and Niagara Central Railway Company, for twenty miles of their railway, from the end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Catharines, towards the city of Hamilton, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000 00

177. To the Quebec and Lake St. John Railway Company, for twenty miles of their railway, from the end of the section of thirty miles from Lake St. John towards Chicoutimi, subsidized by the Act 51 Victoria, chapter 3, towards Chicoutimi, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64.000 00

178. To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

179. To the Hereford Railway Company, for fifteen miles of their railway, from Cookshire to a junction with the Quebec Central Railway at Dudswell, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

180. To the Massawippi Junction Railway Company, for fifteen miles of their railway, from Ayer's Flat to Coaticook, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

181. To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro', towards Palmer's Rapids, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 64,000 00

182. To the Thousand Islands Railway Company, for four miles of their railway, from a point near the St. Lawrence River, in Gananoque village, to Gananoque Junction of the Grand Trunk Railway, and for thirteen miles of their railway, from Gananoque Junction of the Grand Trunk Railway to a junction with the Brockville, Westport and Sault Ste. Marie Railway, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 54,400 00

183. For a railway from Cape Tourmente towards Murray Bay, twenty miles, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $64,000 00

184. To the Amherstburg, Lake Shore and Blenheim Railway Company, for twenty miles of their railway, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000 00

" So much of the subsidy of three thousand two hundred dollars per mile, which under the provisions of the Act forty-ninth Victoria, chapter seventeen, and of this Act, may be paid to the Baie des Chaleurs Railway Company in respect of the thirty miles of their railway, from the seventieth to the hundredth mile, eastward from Metapediac, shall be applicable to the section of the said railway, comprised between the fortieth and the seventieth mile thereof, eastward from Metapediac, instead of to the said first mentioned section of thirty miles, making six thousand four hundred dollars per mile applicable to the secondly mentioned section of thirty miles; but the foregoing provision shall be subject to the condition that the said company undertake to complete the thirty miles of their railway from the seventieth to the hundredth mile eastward from Metapediac within a reasonable time, not to exceed four years, to be fixed by Order in Council, and without any further subsidy from the Government of Canada, and that they deposit with the Minister of Railways and Canals, as security to the Crown that they will well and truly carry out their undertaking, their bonds to the amount of two hundred thousand dollars.

" The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies, respectively, shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized, except as respects the tunnel under the St. Clair River, in which case there shall be paid fifteen per cent of the value of work done on monthly progress estimates, certified by the Chief Engineer, and upon the approval of the Minister of Railways and Canals.

" The granting of such subsidies, respectively, shall be subject to such conditions for securing such running powers or traffic arrangements and other rights, as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

" And for the removal of doubts it is hereby declared and enacted that the provision in the Act passed in the fifty-first year of Her Majesty's reign, and chaptered three, relating to the Pontiac Pacific Junction Railway Company, extended and extends the several subsidies in aid of the said company for four years from the passing of the said Act, that is to say, from the twenty-second day of May, one thousand eight hundred and eighty-eight."

By the Special Act, 52 Vic., cap. 5, 1889 *(Assented to 2nd May, 1889)*:—

185. In order to enable the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company to complete their railway from Regina to some point on the South Saskatchewan River at or near Saskatoon, and thence northward to Prince Albert, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails,

for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum in manner following, that is to say :—the sum of fifty thousand dollars to be paid annually on the construction of the railway to a point at or near Saskatoon, such payment to be computed from the date of the completion of the railway to such point; and the remaining thirty thousand dollars annually on the extension of the railway to Prince Albert, such payment to be computed from the date of such last mentioned completion : Provided that if the second portion of the said railway is not built and operated to Prince Albert within two years after the completion of the railway to the South Saskatchewan as aforesaid, the payment of fifty thousand dollars shall cease until the whole railway is finished to Prince Albert.

By the Act 53 Vic., cap. 2, 1890 *(Assented to 16th May, 1890)* :—

186. To the Montreal and Ottawa Railway Company, for thirty miles of their railway, from the western end of the thirty-six miles subsidized by the Act 50-51 Victoria, chapter 24, towards Ottawa, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole ..... $ 96,000

187. To the Waterloo Junction Railway Company, for eleven miles of their railway, from Waterloo to Elmira, a subsidy not exceeding $3,200 per mile, and not exceeding in the whole 35,200

188. To the Northern and Pacific Junction Railway Company, for a railway from Gravenhurst to Callander, the balance remaining unpaid of the subsidies granted by the Acts 45 Victoria, chapter 14, and 46 Victoria, chapter 25, not exceeding in the whole ... 600

189. For a railway from Woodstock via London to Chatham, in the province of Ontario, thirty miles in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, for a railway from Ingersoll via London to Chatham, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 256,000

190. To the St. Catharines and Niagara Railway Company, for fourteen miles of their railway, from the end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Hamilton, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 44,800

191. To a railway from Ottawa to Morrisburg, fifty-two miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 166,400

192. To the Erie and Huron Railway Company, for twenty-two miles of their railway from Petrolea via Oil Springs to Dresden, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 70,400

193. To the Brockville, Westport and Sault Ste. Marie Railway Company, for a railway from Brockville to Westport, the balance remaining unpaid of the subsidy granted by the Act 48-49 Victoria, chapter 59, not exceeding in the whole 83,000

194. To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

195. To the Port Arthur, Duluth and Western Railway Company, for five miles of their railway, being a branch of the main line of railway to the Kakabeka Falls, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 16,000

196. To the Lake Erie and Detroit River Railway Company, for fifty miles of their railway, on a line to be fixed by the Governor in Council, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 160,000

197. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway, from Bobcaygeon to the Midland Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 51,200

198. To the Kingston, Smith's Falls and Ottawa Railway Company, for thirty-six miles of their Railway, from the north-east end of the twenty miles subsidized by the Act 52 Victoria, chapter 3, to Smith's Falls, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 115,200

199. To the Ottawa and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

200. To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway, from Belleville to Tweed and thence to Bridgewater, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

201. To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

202. To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 11,200

203. To the Woodstock and Centreville Railway Company, for six miles of their railway, from the western end of the twenty miles subsidized by the Act 50-51 Vic., chap. 24, to the International boundary between the province of New Brunswick and the state of Maine, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 19,200

204. For a railway from a point at or near Fredericton, via Oromocto and Gagetown, to a point on the New Brunswick Railway west of Westfield station, for thirty miles thereof, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000

205. To the Central Railway Company of New Brunswick, for four and a half miles of their railway, the distance which the previous subsidy granted is short of covering, from the head of Grand Lake to the Intercolonial Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 14,400

206. To the Montreal and Western Railway Company, for seventy miles of their railway, from St. Jérôme, north-westerly towards Désert, in the province of Quebec, in lieu of the subsidy granted by the Act 49 Vic., chap. 10, a subsidy not exceeding $5,161 per mile, nor exceeding in the whole 361,270

"Provided, that the subsidy hereby granted to the Montreal and Western Company may be paid by instalments on the completion of each section of the railway as follows, that is to say :—

SECTIONS.	Approximate length in miles.
St. Jérôme to Shawbridge	8
Shawbridge to St. Sauveur	4
St. Sauveur to Ste. Adèle	6
Ste. Adèle to Lac à la Fourche	6
Lac à la Fourche to Ste. Agathe	6½
Ste. Agathe to St. Faustin	14
St. Faustin to St. Jovite	7½
St. Jovite to Summit Lake	8
Summit Lake to La Chute aux Iroquois	7
La Chute aux Iroquois towards Désert	3

"Such instalments to be proportionate to the value of the portions so completed in comparison with that of the whole work undertaken, to be established as aforesaid."

207. For seventy-five miles of the railway from Shelburne, in the county of Shelburne, and from Liverpool, in the county of Queen's towards Annapolis, in the province of Nova Scotia, to be so contracted for as to secure the construction to both Shelburne and Liverpool, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 240,000

208. To the Inverness and Richmond Railway Company, for fifty miles of their railway from Port Hawkesbury to Broadcove, a subsidy not exceeding $1,000 per mile, nor exceeding in the whole..... 50,000

209. To the International Railway Company, for a railway from Sherbrooke to the international boundary, the balance remaining unpaid of the subsidy granted by the Act 46 Vic., chapter 25, not exceeding in the whole 3,840

210. For completing the Montreal and Sorel Railway from St. Lambert to Sorel 40,000

211. To the Pontiac Pacific Junction Railway Company, for seven and a half miles of their railway, from Hull to Aylmer, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 24,000

212. To the Montreal and Lake Maskinongé Railway Company, for three and a half miles of their railway, the distance which the subsidy granted by the Act 49 Vic., chapter 10, is short of covering from St. Félix to Lake Maskinongé, in the parish of St. Gabriel, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 10,200

213. To the Great Eastern Railway Company, for a bridge over the Nicolet River, and also a bridge on the St. Francis River, a subsidy of 15 per cent on the value of the structure, not to exceed 37,500

214. To the Drummond County Railway Company, for twenty-four miles of their railway, from Drummondville to Ste. Rosalie, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 76,800

215. To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific Railway, between Joliette and St. Félix de Valois, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000

216. To the Lake Temiscamingue Colonization Railway Company, for twenty miles of their railway, from the northern end of the fifteen miles subsidized by the Act 52 Vic., chapter 3, to the Long Sault, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 64,000

217. To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from the northern end of the 15 miles subsidized by the Act 52 Victoria, chapter 3, towards the parish of St. Michel des Saints, on the River Mattawa, in the province of Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000

218. To the St. Lawrence and Adirondack Railway Company, for eighteen miles of their railway, from Valleyfield to Huntingdon, on the Montreal and Champlain Junction Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 57,600

219. To the Quebec Central Railway Company, for ninety miles of their railway, from St. Francis Station, on the Quebec Central Railway, to a point on the Atlantic and North-western Railway,

near Moose River, or from a point on the Quebec Central Railway between the Chaudière River and Tring Station, to a point on the International Railway at or near Lake Megantic, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding $21,191.54 per annum for twenty years, or a guarantee of a like sum for a like period, as interest on the bonds of the company, such annual subsidy for twenty years representing a grant in cash of $288,000

220. To the Quebec and Lake St. John Railway Company, for a railway bridge over the St. Charles River, to give access to the city of Quebec, a subsidy not to exceed in the whole $30,000; also for twelve miles of their railway from Lorette via Charlesbourg to Quebec, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $38,400 68,400

221. For a railway from Summerside to Richmond Bay, in the province of Prince Edward Island, three miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 9,600

222. To the Columbia and Kootenay Railway Company, for thirty-five miles of their railway, from the outlet of Kootenay Lake to a point on the Columbia River as near as practicable to the junction of the Kootenay and Columbia Rivers, a subsidy not exceeding $3,200 per mile, nor to exceed in the whole 112,000

223. For a railway from a point on the Intercolonial Railway through the Stewiacke Valley on a line which will afford facilities of communication with the Iron Mines, Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 80,000

224. For a railway from Fredericton to the village of Prince William in the province of New Brunswick, twenty-two miles, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 70,400

225. To the St. John Valley and Rivière du Loup Railway Company, for twenty-two miles of their railway from the village of Prince William towards the town of Woodstock, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 70,400

226. To the Témiscouata Railway Company, for sixteen miles of their railway, from the west end of the twenty miles of their branch railway from Edmundston, subsidized by the Act 51 Victoria, chapter 3, towards the St. Francis River, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 51,200

227. For a railway from the north end of the fourteen miles for which a subsidy was granted by the Act 50 and 51 Victoria, chapter 24, to the Tobique Valley Railway Company, from Perth Centre towards Plaister Rock Island, eleven miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 35,200

228. To the Orford Mountain Railway Company, for thirty one miles of their railway, between Eastman and Kingsbury, a subsidy not exceeding $3,200 per mile, nor exceedingin the whole 99,200

229. For a railway from Lachine Bank, on a line of the Grand Trunk Railway, to a point at or near Rivière des Prairies, a distance of fifteen miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose, shall be granted to such companies respectively; the other subsidies,

including subsidies granted for railways over a line extending beyond a point to which any company hereinbefore mentioned by name is authorized to construct its railway, shall be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively. All the lines for the construction of which subsidies are granted shall be commenced within two years from the first day of July next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council,—except the Erie and Huron Railway, which shall be completed within two years from the first day of July next. And they shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specifying an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make. The location, also, of every such line of railway shall be subject to the approval of the Governor in Council. And all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as regards the Erie and Huron Railway Company, upon which payment shall be made only upon the completion of the work—except, also as regards the subsidies to the Inverness and Richmond Railway, which shall be paid on the completion of each ten mile section, in accordance, as nearly as practicable, with the agreement between the company and the municipality of Inverness, and with section four of the Act of the Legislature of Nova Scotia, 1890, intituled: An Act to enable the county of Inverness to borrow money—except, also, as regards the subsidies to the Great Eastern Railway Company for bridges over the Nicolet and St. Francis Rivers, and to the Quebec and Lake St. John Railway for the bridge over the St. Charles River, upon which shall be paid fifteen per cent of the value of work done, on monthly progress estimates certified by the Chief Engineer and upon the approval of the Minister of Railways and Canals—and except also the subsidy granted to the Quebec Central Railway Company, the first annual payment upon which shall be made at the end of twelve months from the date of the Chief Engineer's certificate of the completion of the work, and each subsequent payment at the end of each twelve months thereafter, for the term of twenty years.

"The granting of such subsidies to the companies mentioned, respectively, shall be subject to such conditions for securing running powers or traffic arrangements or other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those subsidized, as the Governor in Council determines."

By the special Act 53 Vic., ch. 5, 1890 *(Assented to 16th May, 1890)*:—

230. In order to enable the Calgary and Edmonton Railway Company to construct so much of their railway as reaches from a point on the line of the Canadian Pacific Railway Company within the town of Calgary to a point on the North Saskatchewan River near Edmonton, the Governor in Council may enter into a contract with such company for the transport of men, supplies, materials and mails for twenty years, and may pay for such services during the said term, eighty thousand dollars per annum, in manner following, that is to say: the sum of eighty thousand dollars to be paid annually on the construction of the railway from Calgary to a point on the North Saskatchewan River near Edmonton,—such payment to be computed from the date of the completion of the railway between such points: Provided that the Governor General in Council may order such sums to be paid in semi-annual instalments, and may permit the company to assign the same by way of security for any bonds or securities which may be issued by the company in respect of the company's undertaking.

By 54-55 Victoria, ch. 8, 1891 *(Assented to 30th Sept., 1891)*:—

231. To the Great Northern Railway Company, for a railway from a point at or near New Glasgow or St. Lin to or near to Montcalm, in the province of Quebec, eighteen miles, the balance

remaining unpaid of the subsidy, not exceeding $3,200 per mile, granted by the Act forty-ninth Victoria, chapter ten, nor exceeding in the whole ..... $ 28,100 00

232. To the Quebec and Lake St. John Railway Company, for the railway bridge over the St. Charles River to give access to the city of Quebec, the difference between the amount already paid to the company and the sum of $30,000 mentioned as not to be exceeded by the Act fifty-third Victoria, chapter two, a subsidy not exceeding 5,250 00

233. To the Oshawa Railway Company, for seven miles of their railway from Port Oshawa towards Raglan, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 22,400 00

234. To the St. Lawrence, Lower Laurentian and Saguenay Railway Company, for the section of their railway from Grand Piles, on the St. Maurice River to its junction with the Quebec and Lake St. John Railway, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole 92,784 00

235. To the Great Eastern Railway Company, for thirty-miles of their railway, from the River St. Francis to the Arthabaska Railway at St. Grégoire station, the balance remaining unpaid of the subsidy, not exceeding $3,200 per mile, granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole 79,700 00

236. To the South Ontario Pacific Railway Company, for forty-nine and one-half miles of their railway from Woodstock to Hamilton, in the province of Ontario, in lieu of the subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 158,400 00

237. To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, not exceeding in the whole 46,040 00

238. To the Tobique Valley Railway Company, for fourteen miles of their railway from Perth Centre station towards Plaister Rock Island, in lieu of the subsidy for a like amount granted by the Act passed in the session held in the fiftieth and fifty-first years of Her Majesty's reign, chapter twenty-four, a subsidy not exceeding $6,400 per mile, nor exceeding in the whole 89,600 00

239. To the Kingston, Smith's Falls and Ottawa Railway Company for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed $179,200, granted by the Acts fifty-second Victoria, chapter three, and fifty-third Victoria, chapter two, a subsidy not exceeding $12,534 per annum, to be paid in semi-annual instalments of $6,267 each, for twenty years, which represents a grant in cash of 179,200 00

"Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles; Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding $1,170,000, in consideration whereof there shall be paid to the company, for twenty years, a semi-annual annuity calculated on a basis of three and one-half per cent on the amount so deposited; Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking."

240. To the Brockville, Westport and Sault Ste. Marie Railway Company, for twenty miles of their railway, from a point at or near Newboro' towards Palmer's Rapids, in the province of Ontario, in lieu of a subsidy for a like amount granted by the Act fifty-second Victoria, chapter three, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $64,000 00

"Provided that the subsidy hereby granted to the Brockville, Westport and Sault Ste. Marie Railway Company may be paid by instalments, on the completion of each section of the railway as follows, that is to say:—

Sections.	Length in miles.
From, at or near Newboro' to Westport.....	4
From Westport towards Palmers Rapids.....	16

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall be granted to such companies respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council; and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals and specified in an agreement to be made in each case by the company with the Government, and which the Government is hereby empowered to make; the location, also of every such line of railway, shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, the first semi-annual payment upon which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of twenty-eight miles of the railway, and each subsequent payment at the end of each six months thereafter, for the term of twenty years,—except also as to the Quebec and Lake St. John Railway Company, the subsidy to which shall be paid upon the completion of the work,—except also as to the Brockville, Westport and Sault Ste. Marie Railway Company, the subsidy to which shall be paid as follows: on the completion of that portion of the said road from, at or near Newboro' to Westport, a distance of four miles, the sum of twelve thousand eight hundred dollars, and on the completion of the remaining sixteen miles from Westport towards Palmer's Rapids, the sum of fifty-one thousand two hundred dollars.

"Within one month after the commencement of each session of Parliament, whilst any of the said moneys are being paid out, there shall be laid before Parliament a statement showing all payments of such moneys during the then next preceding year, the names of the respective persons to whom such payments have been made, and the amounts paid them respectively, together with the engineer's report upon which pay-

ments have been recommended, and copies of all contracts between the Government and the company under which the said subsidies are authorized to be paid.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running power or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

By the Act 55-56 Victoria, chap. 5, 1892 *(Assented to 9th July, 1892)* :—

241. To the Lake Erie and Detroit River Railway Company, for fifty-eight miles of their railway from a point at or near Cedar Creek to the town of Ridgetown, in lieu of the subsidies granted to the Lake Erie and Detroit River Railway Company by the Act 53 Victoria, chapter 2, and to the Amherstburg, Lake Shore and Blenheim Railway Company by the Act 52 Victoria, ch. 3. $224,000 00

242. To the Ottawa, Arnprior and Parry Sound Railway Company, for fifty-five miles of their railway from Barry's Bay towards the Northern Pacific Junction Railway, a subsidy not exceeding $6,400 per mile on the first twenty-seven and a half miles out from Barry's Bay, and not exceeding $3,200 per mile on the second twenty-seven and a half miles, nor exceeding in the whole..... 264,000 00

243. To the Canadian Pacific Railway Company or to the Columbia and Kootenay Railway and Navigation Company, for a railway from a point on the Canadian Pacific Railway at or near Revelstoke to the head of Arrow Lake, for twenty-five miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 80,000 00

244. To the Tobique Valley Railway Company, for a railway from the north end of the eleven miles for which a subsidy was granted by the Act 53 Victoria, chapter 2, to Plaister Rock Island, for 3 miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 9,600 00

245. To the Montfort Colonization Railway Company, for twenty-one miles of their railway from Lachute, St. Jérôme or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 67,200 00

246. To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway from the Belmont iron mines to the Canadian Pacific Railway and the Central Ontario Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000 00

247. To the Montreal and Champlain Junction Railway Company, the balance remaining unpaid of the subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, a subsidy of..... 15,100 00

248. To the Buctouche and Moncton Railway Company, for thirty-two miles of their railway from Moncton to Buctouche, the balance remaining unpaid of the subsidy, not exceeding $3,200 per mile, granted by the Acts 49 Victoria, chapter 10, and 50-51 Victoria, chapter 24, not exceeding in the whole..... 35,480 00

249. To the Cobourg, Northumberland and Pacific Railway Company, for nineteen miles of their railway from Cobourg to the Ontario and Quebec Railway (in addition to the subsidy granted by the Act 53 Victoria, chapter 2), a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 60,800 00

250. For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien in the said county, for twelve miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 38,400 00

251. To the Inverness and Richmond Railway Company (or any other company undertaking the work), for twenty-five miles of their railway from a point on the Cape Breton Railway, at or near Orangedale, to Broadcove, a subsidy not exceeding $3,200 per mile, in lieu of the subsidy of $50,000 granted to the said railway company by 53 Victoria, chapter 2, and on the same conditions, not exceeding in the whole 80,000 00

252. To the Nicola Valley Railway Company, for twenty-five miles of their railway from a point on the Canadian Pacific Railway at or near Spence's Bridge towards Nicola Lake 80,000 00

253. To the Lotbinière and Megantic Railway Company, for fifteen miles of their railway from a point at or near St. Jean Deschaillons towards Glen Lloyd, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000 00

254. To the Stewiacke and Lansdowne Railway Company, for a railway from a point on the Intercolonial Railway, through the Stewiacke Valley, on a line which will afford facilities of communication with the iron mines at Springside, Upper Stewiacke and Musquodoboit settlements, twenty-five miles, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 80,000 00

255. To the Philipsburg Junction Railway and Quarry Company, for six and seven-hundredths miles of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 21,600 00

256. To the Kingston, Napanee and Western Railway Company, for three miles of their railway from a point at or near Harrowsmith to a point at or near Sydenham, in lieu of the subsidy granted for this section of road by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 9,600 00

257. For a railway from Cape Tourmente towards Murray Bay, in the province of Quebec, twenty miles, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 64,000 00

258. To the Stewiacke and Lansdowne Railway Company, for a railway from Truro, or a point between Truro and Stewiacke, to Newport or to Windsor, in the province of Nova Scotia, for forty-nine miles of such railway, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 156,800 00

259. To the Restigouche and Victoria Railway Company, for fifteen miles of their railway from Campbellton towards Grand Falls, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 48,000 00

260. For a railway from St. Johns to Ste. Rosalie, thirty-two miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 102,400 00

261. For a railway from St. Placide to St. Andrew's, eight miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.. 25,600 00

262. For a railway to complete the connection between Sydney and Louisburg, in the county of Cape Breton, for twenty-eight miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 89,600 00

263. To the Belleville and Lake Nipissing Railway Company, for thirty miles of their railway from Belleville to Tweed and thence to Bridgewater, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 96,000 00

264. To the Kingston, Smith's Falls and Ottawa Railway Company, for fifty-six miles of their railway from the city of Kingston to Smith's Falls, in lieu of the subsidies, not to exceed $179,200, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of such subsidies so granted, to be paid in semi-annual instalments for such period not exceeding twenty-one years, as the company may elect, which represents a grant in cash of..... 179,200 00

"Provided, that upon the completion of twenty-eight miles of the said railway a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole fifty-six miles : Provided also, that the company may deposit with the Minister of Finance and Receiver General, a sum not exceeding $1,170,000, in consideration whereof there shall be paid to the company for such period not exceeding twenty years as the company may elect, a semi-annual annuity calculated on a basis of three and a half per cent on the amount so deposited. Provided further, that the Governor in Council may permit the company to assign the said subsidy and annuity to trustees by way of security for any bonds or securities which may be issued by the company in respect of their undertaking."

265. To the St. Catharines and Niagara Central Railway Company, for thirty-four miles of their railway from the city of St. Catharines to the city of Hamilton, in lieu of the subsidies, not to exceed $108,000, granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy calculated on a basis of three and a half per cent on the amount of the said subsidies, to be paid in semi-annual instalments for such period, not exceeding twenty years, as the company may elect, representing a grant in cash of $108,000 : Provided that, upon the completion of ten miles of said railway, a semi-annual subsidy may be paid proportionate to the value of the portion so completed in comparison with that of the whole thirty-four miles. Provided also, that the company may deposit with the Minister of Finance and Receiver General a sum not exceeding $400,000, in consideration whereof there shall be paid by the Government to the company, for such period not exceeding twenty years, as the company may elect, a semi-annual annuity, calculated on a basis of three and a half per cent on the amount so deposited, or a guarantee of a like sum, as interest on the bonds of the company : Provided further, that the company, with the approval of the Governor in Council, may assign the said subsidy and annuity to trustees by way of security for principal, or interest of any bonds or securities which may be issued by the company in respect of their undertaking, and the subsidy last above mentioned to the St. Catharines and Niagara Central Railway Company shall be paid in instalments, the first semi-annual payment upon which shall be made at the end of the six months from the date of the Chief Engineer's certificate of the completion of the first ten miles of railway, and each subsequent payment at the end of six months thereafter, for the term of twenty years or less. It is a condition of this subsidy that the sum not exceeding $400,000 above mentioned shall be deposited with the Finance Minister before January 1st, 1893.

266. To the Woodstock and Centreville Railway Company, for a railway from Woodstock towards Centreville, twenty miles, in lieu of the subsidy granted by 50-51 Victoria, chapter 24, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $64,000 00

267. To the Brockville, Westport and Sault Ste. Marie Railway Company, for the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding $3,200 per mile, and also for the balance remaining unpaid of the subsidy granted by the Act 53 Victoria, chapter 2, nor exceeding in the whole..... 96,800 00

268. To the New Glasgow Iron, Coal and Railway Company, for a railway from Eureka Junction on the Intercolonial Railway to a point at or near Sunnybrae, including a branch line to the charcoal iron furnace at Bridgeville, for twelve and a half miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 40,000 00

269. To the Thousand Island Railway Company, for an extension of their railway to connect with the Brockville, Westport and Sault Ste. Marie Railway, the Kingston, Napanee and Western Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, and an extension across the mouth of the Gananoque River, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..... 44,000 00

Payable, $14,000 on the completion of the last named or southern extension, and the balance of said subsidy, being $30,000, on the completion of the first named or northern extension of their railway.

270. To the Manitoulin and North Shore Railway Company, for thirty miles of their railway from Little Current to the Algoma Branch of the Canadian Pacific Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $96,000 00

271. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for sixteen miles of their railway from the end of the line subsidized by the Act 53 Victoria, chapter 2, at the junction with the Midland Railway, to Pontypool, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 51,200 00

272. For seventy-five miles of the railway from Sand Point, Shelburne Harbour, in Nova Scotia, to Annapolis Royal, in the county of Annapolis and to a junction at or near New Germany on the Nova Scotia Central Railway, with a view to future construction to Liverpool, in lieu of the subsidy of a like amount granted by the Act 53 Victoria, chapter 2, for the same length of railway from Shelburne and from Liverpool, towards Annapolis, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 240,000 00

273. To the Kingston, Napanee and Western Railway Company, for twenty miles of their railway, being extensions or branches in the counties of Peterborough, Hastings, Addington, Frontenac or Leeds, towards iron deposits, a subsidy not exceeding $3,200 per mile, payable in instalments regulated by the length of each of the said extensions, additions or branches, the subsidy not exceeding in the whole..... 64,000 00

274. To the St. John Valley and Rivière du Loup Railway Company, for ten miles of their railway from the north end of the line subsidized by the Act 53 Victoria, chapter 2, towards the town of Woodstock, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

275. To the Cobourg, Northumberland and Pacific Railway Company, for thirty miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 96,000 00

276. To the Ottawa, Arnprior and Parry Sound Railway Company, for thirty miles of their railway, from Eganville to Barry's Bay, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 96,000 00

277. To the Ottawa, Arnprior and Parry Sound Railway Company, for twenty-two miles of their railway from a point on the Canadian Pacific Railway to Eganville, in lieu of the subsidy granted by the Act 51 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 70,400 00

278. To the Lake Témiscamingue Colonization Railway Company, for thirty-five miles of their railway from Mattawa to the Long Sault, in lieu of the subsidies granted by the Acts 52 Victoria, chapter 3, and 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 112,000 00

279. To the Témiscouata Railway Company, for twelve miles of their railway from the north end of the section of the St. François Branch subsidized by the Act 51 Victoria, chapter 3, being the first twelve miles on the section subsidized by the Act 53 Victoria, chapter 2, a subsidy not exceeding $1,800 per mile, in addition to the subsidy already granted, and not exceeding in the whole 21,600 00

280. To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway from Port Burwell to Tilsonburg, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 51,200 00

281. To the Woodstock and Centreville Railway Company, for six miles of their railway from the west end of their twenty miles subsidized by the Act 50-51 Victoria, chapter 24, to the international boundary between the province of New Brunswick and the state of Maine, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 19,200 00

282. To the Lake Témiscamingue Colonization Railway Company, for 15 miles of their railway from the Long Sault to the crossing of the Kippewa River, a subsidy not exceeding $3,200 per mile—and a subsidy of fifteen per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not exceeding $15,000,—nor exceeding in the whole 63,000 00

283. To the Goderich and Wingham Railway Company, for thirty-one miles of their railway from Goderich to Wingham, via Port Albert, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 99,200 00

284. To the Joliette and St. Jean de Matha Railway Company, for eight miles of their railway from St. Félix de Valois to St. Jean de Matha, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 25,600 00

285. To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 48,000 00

286. To the Nipissing and James Bay Railway Company, for twenty-five miles of their railway from, at or near North Bay station on

the Canadian Pacific Railway towards James Bay, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 80,000 00

287. For a railway from a point on the Intercolonial Railway between Ste. Flavie and Little Métis station to Matane, for fifty miles of such railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 160,000 00

288. To the Ontario and Pacific Railway Company, for fifty-three and eighty-seven hundredths miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 172,400 00

289. For a railway from a point on the line of the Canadian Pacific Railway on the Isle Jésus, in the county of Laval, towards St. Eustache, for twelve miles of such railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, to the Carillon and Grenville Railway Company, for twelve miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400 00

290. For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for eighteen miles of such railway, in lieu of the subsidy granted by the Act 49 Victoria, chapter 10, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 57,600 00

291. To the Port Arthur, Duluth and Western Railway Company, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding, with the amount already paid, $3,200 per mile, nor exceeding in the whole..... 114,125 00

292. To the Drummond County Railway Company for four and six-tenths miles of their railway from Bull's Wharf, on the St. Lawrence River, near Nicolet, to Ste. Rosalie Junction, an excess of distance by the constructed line over the subsidies heretofore voted for a railway between the said points, $3,200 per mile, not exceeding in the whole..... 14,720 00

293. To the St. Lawrence and Adirondack Railway Company, for five and forty-two hundredths miles of their railway, from Huntingdon towards the international boundary, which, with the distance between Valleyfield and Huntingdon, twelve and fifty-eight hundredths miles, makes up the distance of eighteen miles named in the 53 Vic., chap. 2, granting a subsidy to this company, and for five and forty-hundredths miles from the east end of the eighteen miles referred to to the international boundary, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 25,024 00

"The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications, and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council; and all the said subsidies respectively shall be payable out of the Consolidated

Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the subsidy granted to the Kingston, Smith's Falls and Ottawa Railway Company, and the subsidy granted to the St. Catharines and Niagara Central Railway Company, the first semi-annual payments upon both of which shall be made at the end of six months from the date of the Chief Engineer's certificate of the completion of their railways respectively, and each subsequent payment at the end of each six months thereafter, for the term of twenty years or less."

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines."

294. Notwithstanding the expiration of the time limited by the Act 47 Victoria, chapter 8, and by the contract entered into with the Pontiac Pacific Junction Railway Company, the Governor in council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act.

295. Notwithstanding the expiration of the time limited by the Act 52 Victoria, chapter 3, and by the contract entered into with the Quebec and Lake St. John Railway Company, the Governor in Council may pay the balance remaining unpaid of the subsidy granted by the said Act to the said company, according as it becomes due and payable in accordance with the said contract, and subject to the terms and conditions applicable to the said subsidy under the terms of the said Act; and notwithstanding anything contained in the Act 50-51 Victoria, chapter 24, the Governor in Council may also pay to the said company the balance remaining unpaid of the subsidy granted to the company by the said Act, amounting to $12,800, on the four miles of their road from the north end of the main line subsidized towards Roberval.

By the Act 56 Vic., chap. 2, 1893 (*Assented to 1st April, 1893*):—

296. To the Great Eastern Railway Company, for twenty miles of their railway, from the east end of the line subsidized by the Act 50-51 Victoria, chapter 24, at St. Grégoire, towards the Chaudière Junction station on the Intercolonial Railway, in the province of Quebec, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 64,000 00

297. To the United Counties Railway Company, for thirty-two miles of their railway, from a point at or near the town of Iberville to St. Hyacinthe, and thence towards Sorel, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, for a railway from St. Johns to Ste. Rosalie, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 102,400 00

298. To the Ontario, Belmont and Northern Railway Company, for ten miles of their railway, divided into two sections: first, from the Belmont Iron Mines to Marmora village; second, from Marmora village to the junction with the Ontario Central Railway, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 32,000 00

299. To the Central Ontario Railway Company, for twenty miles of their railway, from Coe Hill or Gilmore, or some point between

Coe Hill and Gilmore, to Bancroft, via L'Amable, or as near thereto as practicable, in lieu of the subsidy granted by the Act 48-49 Victoria, chapter 59, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 64,000 00

300. To the Quebec and Lake St. John Railway Company, for thirty miles of their railway, from Lake St. John towards Chicoutimi, the balance remaining unpaid of the subsidy granted by the Act 51 Victoria, chapter 3, not exceeding in the whole 81,040 00

301. To the Irondale, Bancroft and Ottawa Railway Company, for fifty miles of their railway, from the Victoria branch of the Midland Railway to the village of Bancroft, in the county of Hastings, the balance remaining unpaid of the subsidy granted by the Act 47 Victoria, chapter 8, and again granted by the Act 52 Victoria, chapter 3, not exceeding in the whole 145,000 00

302. To the Beauharnois Junction Railway Company, for thirty miles of their railway, from Ste. Martine towards St. Anicet, the balance remaining unpaid of the subsidy granted by the Act 50-51 Victoria, chapter 24, not exceeding in the whole..... 3,500 00

303. To the St. Stephen and Milltown Railway Company, for three and a half miles of their railway, from the town of St. Stephen to the town of Milltown, in lieu of the subsidy granted by the Act 53 Victoria, chapter 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 11,200 00

304. To the Quebec, Montmorency and Charlevoix Railway Company, for thirty miles of their railway, from the east bank of the River St. Charles, to or near to Cape Tourmente, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole.. 30,400 00

305. To the Ottawa and Gatineau Valley Railway Company, for sixty-two miles of their railway, from Hull station towards Le Désert, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..... 89,248 00

306. To the Grand Trunk, Georgian Bay and Lake Erie Railway Company, for fifteen miles of their railway, from the village of Tara, or some point between Tara and Hepworth, to the town of Owen Sound, in the province of Ontario, in lieu of the subsidy granted by the Act 52 Victoria, chapter 3, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000 00

307. To the Nova Scotia Central Railway Company (or to such person or persons or company as in the opinion of the Minister or acting Minister of Justice are entitled to the same) for eighty miles of their railway, from Lunenburg, on the east coast of Nova Scotia, westward to a point in the district of New Germany, together with a spur about three-fourths mile long to Bridgewater railway wharf, and from a point thirty-three and a half miles from Lunenburg and running to Middleton on the Windsor and Annapolis Railway, of unpaid subsidies granted by the Acts 50-51 Victoria, chapter 24, and 51 Victoria, chapter 3, an amount not exceeding in the whole..... 4,500 00

308. To the Great Northern Railway Company, for eighteen miles of their railway, from a point at or near New Glasgow or St. Lin, to or near to Montcalm, in the province of Quebec, the balance remaining unpaid of the subsidy granted by the Act 54-55 Victoria, chapter 8, not exceeding in the whole... ..... 25,600 00

309. To the Great Northern Railway Company, for fifteen miles of their railway, from, at or near Montcalm to the Canadian Pacific

Railway between Joliette and St. Félix de Valois, in lieu of the subsidy granted by the Act 53 Victoria, chap. 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 48,000 00

310. To the Montfort Colonization Railway Company, for twenty-one miles of their three-feet gauge railway from Lachute, St. Jérôme, or a point at or near St. Sauveur, on the line of the Montreal and Western Railway, to Montfort and westward, in lieu of the subsidy granted by the Act 55-56 Victoria, chapter 5, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 67,200 00

311. To the Maskinongé and Nipissing Railway Company, for fifteen miles of their railway, from a point on the Canadian Pacific Railway at or near Maskinongé or Louiseville, towards the parish of St. Michel des Saints, on the river Mattawa, in the province of Quebec, and for fifteen miles of their railway from the north end of the fifteen miles above referred to, towards the parish of St. Michel des Saints on the river Mattawa, in the province of Quebec, in lieu of the subsidies granted by the Acts 52 Victoria, chap. 3, and 53 Victoria, chap. 2, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000 00

312. To the Parry Sound Colonization Railway Company, for forty miles of their railway, from the village of Parry Sound to the village of Sundridge, or some other point on the Northern Pacific Junction Railway, in the province of Ontario, the balance remaining unpaid of the subsidy granted by the Act 52 Victoria, chapter 3, not exceeding in the whole..... 97,600 00

313. To the Jacques Cartier Union Railway Company, for extending and completing their railway, in lieu of the subsidy granted by the Act 50-51 Victoria, chapter 24, a subsidy of..... 20,000 00

314 To the Oshawa Railway Company, for seven miles of their railway and branches as follows: from Port Oshawa to a point at or near Edmondson's Falls mill site, near Mill Street, in the town of Oshawa (this portion being known as the "Lake" section of the said railway); thence to a point at or near the town hall in the town of Oshawa, and thence to the Oshawa station of the Grand Trunk Railway Company of Canada (this portion being known as the "Town" or "Northern" section of the said railway)—in lieu of the subsidy granted by the Act 54-55 Victoria, chapter 8, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 22,400 00

"All the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location, also, of every such line of railway shall be subject to the approval of the Governor in Council.

"The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

"All the said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed

in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as follows :—

"(*a.*) The subsidy to the Ontario, Belmont and Ottawa Railway Company, which shall be paid as follows : on the completion of the first section, an instalment proportionate to the value of the said section in comparison with that of the ten miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy on the completion of the second section ;

"(*b.*) The subsidy to the Oshawa Railway Company, which shall be paid as follows : on the completion of the "Town" or "Northern" section, an instalment proportionate to the value of the said section in comparison with that of the seven miles hereby subsidized, to be established as aforesaid, and the balance of the said subsidy, on the completion of the "Lake" section of the said railway."

By the Act 57-58 Vic., cap. 4, 1894. *(Assented to, 23rd July, 1894)* :—

315. To the Bracebridge and Baysville Railway Company, for fifteen miles of their railway from Bracebridge towards Baysville, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 48,000

316. To the Brockville, Westport and Sault Ste. Marie Railway, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding $3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was re-granted by chapter 5 of 1892 ; the whole not exceeding 86,800

317. To the Tilsonburg, Lake Erie and Pacific Railway Company, for sixteen miles of their railway, from Port Burwell to Tilsonburg, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 51,200

318. To the Brantford, Waterloo and Lake Erie Railway Company, for eighteen miles of their railway, from the town of Brantford to the village of Hagarsville or the village of Waterford, or some intermediate point on the Canada Southern Railway, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding $3,200 per mile, nor exceeding in the whole 4,790

319. To the St. Catharines and Niagara Central Railway Company, for 34 miles of their railway from the city of St. Catharines to the city of Hamilton, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 108,800

320. To the Montreal and Ottawa Railway Company (formerly the Vaudreuil and Prescott Railway Company), for thirty miles of their railway from Vaudreuil towards Hawkesbury, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887 ; and for 30 miles of their railway from the western end of the 30 miles first mentioned towards Ottawa, the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, not exceeding $3,200 per mile ; the whole not exceeding..... 118,400

321 Notwithstanding the expiration of the time limited by chapter 2 of 1890, and by the contract entered into with the Quebec Central Railway Company, and notwithstanding anything otherwise in the said chapter 2 contained, the Governor in Council may pay the subsidy granted by the said chapter to the said company at the present worth of the twenty annual payments mentioned in the said chapter (interest computed at four per cent), for and upon the completion of its railway extending from a point between the Chaudière River and Tring Station to a point on the International Railway at or near Lake Megantic, and upon the inspection and acceptance of the same by the Chief Engineer of Railways and Canals, the sum in all of..... 288,000

322. To the Philipsburg Junction Railway and Quarry Company, for $\frac{67}{100}$ mile of their railway from Stanbridge Station to Philipsburg, in the county of Missisquoi and a branch to Missisquoi Bay, the balance remaining unpaid of the subsidy granted by chapter 5 of 1892, not exceeding $3,200 per mile, nor exceeding in the whole ..... $ 2,912

323. To the Joliette and St. Jean de Matha Railway Company, for 8 miles of their railway from St. Félix de Valois to St. Jean de Matha, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 23,600

324. To the Lake Temiscamingue Colonization Railway Company, for their railway from Mattawa to the foot of the Kippewa Lake, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $160,000,—also 15 per cent on the value of a wooden truss bridge over the Ottawa River near Mattawa, not to exceed $15,000 in all, in lieu of the subsidies granted by chapter 5 of 1892,—also the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, for their railway from Long Sault to Lake Kippewa, a subsidy not exceeding $3,200 per mile of railway and 15 per cent on the value of the bridges,—also, a sum of $1,750 additional per mile on their said railway from Mattawa to the foot of the Kippewa Lake; the whole not exceeding 274,940

325. For a railway from St. Placide to St. Andrews, 8 miles, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 25,600

326. For a railway from St. Eustache to St. Placide, in the county of Two Mountains, for 18 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 57,600

327. For a railway from a point on the line of the Canadian Pacific Railway on Isle Jésus, in the county of Laval, towards St. Eustache, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, to the Carillon and Grenville Railway Company, for 12 miles of their railway, from St. Eustache to Sault au Récollet, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 38,400

328. For a railway from the parish of St. Rémi, in the county of Napierville, to St. Cyprien, in the said county, for 12 miles of such railway, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 38,400

329. To the Pontiac Pacific Junction Railway Company, for bridging the several channels of the Ottawa River at Culbute and west thereof, a subsidy of $31,500, to be paid out monthly as the work progresses, upon the certificate of the chief engineer of government railways, in the proportion which the value of the work executed bears to the value of the whole work undertaken; and for 3 miles of their railway extending from a point 3 miles east of Pembroke to Pembroke, in the province of Ontario, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole $9,600, in lieu of the subsidy granted by chapter 3 of 1888; provided that the entire work subsidized upon this railway shall be completed within 4 years from the passing of this Act; the subsidy granted by this Act not to exceed in the whole 41,100

330. To the Pontiac Pacific Junction Railway Company, for the construction or acquisition of 7½ miles of railway, from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. $ 24,000

331. To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, less the subsidy granted for the line from Hull to Aylmer, provided the Ottawa River is crossed at some point not east of Lapasse, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole 73,172

332. To the Harvey Branch Railway Company, for 3 miles of their railway from the southern terminus of the Albert Railway to Harvey Bank, the balance remaining unpaid of the subsidy granted by chapter 24 of 1887, not exceeding $3,200 per mile, nor exceeding in the whole..... 4,046

333. For a railway from a point on the Intercolonial Railway near Newcastle via Douglastown, to a point on the River Miramichi opposite the town of Chatham, in the province of New Brunswick, 6 miles, in lieu of the subsidy granted by chapter 10 of 1886, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 19,200

334. For a railway from some point on the Joggins Railway, near the Hebert River, to Young's Mills, in the province of Nova Scotia, a distance of 5 miles, in lieu of the subsidy granted by chapter 3 of 1889, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 16,000

335. To the Woodstock and Centreville Railway Company, for a railway from Woodstock to the international boundary between the province of New Brunswick and the state of Maine, 26 miles, in lieu of the subsidies granted by chapter 24 of 1887 and chapter 2 of 1890 a subsidy not exceeding $3,200 per mile nor exceeding in the whole..... 83,200

336. For 90 miles of the railway from Newport or Windsor to Truro, or to a point between Truro and Stewiacke, and from a point on the said railway to a point at or near Eastville, and from Eastville through the valley of the Musquodoboit River towards a point on the proposed Dartmouth branch of the Intercolonial, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile; and also for a railway bridge over the Shubenacadie River on the line of the said railway, a subsidy of 15 per cent on the value of the structure; the whole not exceeding..... 300,000

337. To the Nipissing and James Bay Railway Company, for 25 miles of their railway from, at or near North Bay Station on the Canadian Pacific Railway towards James Bay, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile; also for 43 miles of their railway from North Bay towards Lake Tamagaming, a subsidy not exceeding $3,200 per mile; the whole not exceeding..... 217,000

338. To the Lotbinière and Mégantic Railway Company, for 15 miles of their railway, in addition to the 15 miles already subsidized and built, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000

339. To the Drummond County Railway Company, for 30 miles of their railway from St. Leonard northerly towards a junction with the Intercolonial Railway at Chaudière Junction, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000

340. For a railway from Lime Ridge, in the county of Wolfe, in the province of Quebec, northerly through the county of Wolfe and into the county of Megantic, a distance not exceeding 50 miles from Lime Ridge, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $160,000

341. To the Strathroy and Western Counties Railway Company, for 25 miles of their railway from St. Thomas through the counties of Elgin and Middlesex, towards Forest Station or Park Hill, on the Grand Trunk Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 80,000

342. To the Parry Sound Colonization Railway Company, for 20 miles of their railway east from Parry Sound, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000

343. To the Manitoulin and North Shore Railway Company, for 10 miles of their railway from Little Current to Nelson, on the Algoma Branch of the Canadian Pacific Railway, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000

344. To the United Counties Railway Company for 32 miles of their railway from Iberville to Sorel, in addition to the 32 miles already subsidized, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 102,400

345. To the Joliette and St. Jean de Matha Railway Company, for 12 miles of their railway from St. Jean de Matha to Ste. Émelie de L'Energie, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400

346. To the Great Northern Railway Company, for 22 miles of their railway, from the eastern end of the 15 miles subsidized by chapter 2 of 1893 to a point between Joliette and St. Félix de Valois, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 70,400

347. To the Quebec and Lake St. John Railway Company, for 2 miles of the Chicoutimi branch of their railway, from the east end of the 50 miles already subsidized and built eastward to deep water at Chicoutimi, a subsidy not exceeding $3,200 per mile; also for 12 miles from the 52nd mile on the Chicoutimi branch to Ha Ha Bay, a subsidy not exceeding $3,200 per mile; the whole not exceeding..... 44,800

348. To the Pontiac and Ottawa Railway Company, for 23 miles of their railway from the point of divergence from the Pontiac Railway to Ferguson's Point, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 73,600

349. To the Ottawa and Gatineau Valley Railway Company, for 20 miles of their railway from the eastern end of the 62 miles already subsidized towards Désert, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000

350. To the Canada Eastern Railway Company for 6 miles of their railway from the town of Chatham to Black Brook, a subsidy not exceeding $3,200 per mile; also for 4 miles of their railway for a branch to the village of Nelson, a subsidy not exceeding $3,200 per mile; the whole not exceeding..... 32,000

351. For a railway from Cross Creek Station, on the Canada Eastern Railway to Stanley village, in the county of York, in the province of New Brunswick, 6 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 19,200

352. To the Restigouche and Victoria Railway Company, for 20 miles of their railway from the western end of the 15 miles subsidized by chapter 5 of 1892, towards Grand Falls, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 64,000

353. To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman station to the Newcastle coal fields, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 48,000

354. To the Tobique Valley Railway Company, for 15 miles of their railway from the present terminus at Plaister Rock easterly, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 48,000

355. Towards the restoration or renewal of the railway bridge on the South-eastern Railway over the Yamaska River at Yamaska, a subsidy equal to one-third of the actual cost of the renewal of the bridge, but the grant not to exceed in the whole..... 50,000

356. To the Boston and Nova Scotia Coal and Railway Company, for 10½ miles of their railway from the north end of the section already subsidized to Broad Cove, a subsidy not exceeding $3,200 per mile; also for 25 miles of their railway from a point on the Cape Breton Railway at or near Orangedale towards Broad Cove, in lieu of the subsidy granted by chapter 5 of 1892, a subsidy not exceeding $3,200 per mile; the whole not exceeding 113,600

357. For a railway from Port Hawkesbury towards Cheticamp, 25 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 80,000

358. To the Manitoba North-western Railway Company, for 100 miles of the extension of their main line from its present western terminus towards Prince Albert,—the company relinquishing 3,200 acres of the land grant per mile, and the whole road to be operated as a continuous line of railway under one management, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 320,000

359. For a line of railway from the junction of the Elk and Kootenay Rivers to Coal Creek, a distance of 34 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 108,800

360. For a railway from Abbotsford Station on the Mission Branch of the Canadian Pacific Railway to the town of Chilliwack, 21 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 67,200

361. To the Nicola Valley Railway Company, for 28 miles of their railway from the western end of the section of their road subsidized by chapter 5, of 1892, towards Nicola Lake, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 89,600

362. To the Nakusp and Slocan Railway Company, for 38 miles of their railway from the town of Nakusp to a point at or near the Forks of Carpenter Creek, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 121,600

363. To the Pontiac and Kingston Railway Company, for 22 miles of a railway from Portage du Fort to Upper Thorne Centre, via Shawville, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 70,400

364. To the New Glasgow Iron, Coal and Railway Company, for 5 miles of their railway, from Sunnybrae to Kerrogare, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole.... 16,000 00

365. To the South Shore Railway Company, for 35 miles of their railway from Yarmouth towards Shelburne and Lockport, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. 112,000 00

366. To the Cape Breton Railway Extension Company, for 30 miles of railway from Port Hawkesbury to St. Peter's, on their line of railway from Port Hawkesbury to Louisbourg, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000 00

367. For a railway from a point on the Intercolonial Railway between Norton and Sussex Stations towards Havelock, 20 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole. $ 64,000 00

368. For a railway from St. John to Barneville, for a distance of 10 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 32,000 00

369. For a line of railway from Cap de la Magdeleine to connect with the Piles Branch of the Canadian Pacific Railway, 3 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 9,600 00

370. To the Canada Eastern Railway Company, for an extension of one mile from the western end of their railway, to connect with the Canadian Pacific Railway, a subsidy not exceeding..... 3,200 00

371. To the Great Northern Railway Company, for 30 miles of their railway from its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the River St. Maurice, westward, in lieu of the subsidy granted to the Maskinongé and Nipissing Railway Company by chapter 2 of 1893, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 96,000 00

372. To the Lindsay, Bobcaygeon and Pontypool Railway Company, for 16 miles of their railway from Bobcaygeon to the Midland Railway, and for another 16 miles from the end of the first mentioned 16 miles to Pontypool, in lieu of the subsidies granted by chapter 2 of 1890, and chapter 5 of 1892, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 102,400 00

373. To the Montfort Colonization Railway Company, for 12 miles of their railway from the end of the 21 miles already subsidized westward to a point on the Rouge River, in the county of Argenteuil, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400 00

374. For a railway from a point on the Caraquet Railway, at or near Pokemouche siding, towards Tracadie village, 12 miles, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... 38,400 00

The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as shall be approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railway and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized,—except as to subsidies with respect to which it is hereinbefore otherwise provided, and except also as to the

subsidy granted to the Great Northern Railway Company by chapter two of 1893, for fifteen miles from Montcalm to the Canadian Pacific Railway, which shall be paid as follows: on the completion of the eighteen miles from New Glasgow to Montcalm and of two miles out of the fifteen miles from Montcalm to the Canadian Pacific Railway, an instalment proportionate to the value of the ten miles out of the total mileage subsidized by chapter two of 1893, to be established as aforesaid, and the balance of the said subsidy on the completion of the remaining thirteen miles of the said railway.

No subsidies were authorized by 58-59 Vict. (1895), nor by 59 Vict. (1896).

By the Act 60-61, chapter 4, 1897 *(Assented to 29th June, 1897).*

1. In this Act, unless the context otherwise requires, the expression "cost" means the actual, necessary and reasonable cost, and includes the amount expended upon any bridge up to and not exceeding twenty-five thousand dollars, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of $3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated), which shall not cost more on the average than $15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than $15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of $3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile:—

375. To the Ottawa and New York Railway Company, for $53\frac{87}{100}$ miles of their railway from Cornwall to Ottawa, in lieu of the subsidy granted by chapter 5 of the statutes of 1892,

376. To the Kingston, Smith's Falls and Ottawa Railway Company, for 101 miles of their railway from Kingston, or a junction with the Grand Trunk Railway at Rideau or some other point near Kingston, to Ottawa, in lieu of the subsidy granted by chapter 5 of 1892;

377. For a railway from a point on the Canadian Pacific Railway, at or near either Welsford or Westfield, or between the said two points, to Gagetown, in the county of Queen's, New Brunswick, not exceeding 30 miles, in lieu of the subsidy granted by chapter 2 of 1890;

378. To the Cobourg, Northumberland and Pacific Railway Company, for 50 miles of their railway from Cobourg to the Ontario and Quebec Railway, in lieu of the subsidies granted by chapter 5 of 1892;

379. To the Ottawa and Gatineau Railway Company, for 20 miles of their railway from the end of the 62nd mile subsidized towards Désert, in lieu of the subsidies granted by chapter 4 of 1894;

380. To the Great Northern Railway Company, for 9 miles of their railway, being shortage in distance between Montcalm and St. Tite;

381. To the St. Gabriel de Brandon and Ste. Emélie de l'Energie Railway Company, for 15 miles of their railway from St. Gabriel to Ste. Emélie de l'Energie, and 5 miles from a point on the main line to St. Jean de Matha, making in all 20 miles, in lieu of the subsidy granted by chapter 4 of 1894;

382. To the Central Railway Company of New Brunswick, for 15 miles of their railway from Chipman Station to Newcastle Coal Fields, county of Queen's, in lieu of the subsidy granted by chapter 4 of 1894;

383. To the Gulf Shore Railway Company, for 5½ miles of their railway from the end of the section subsidized to Tracadie and thence to Big Tracadie, New Brunswick;

384. For a railway from Campbellton, on the Intercolonial Railway, towards Grand Falls, New Brunswick, a distance of 20 miles, commencing at Campbellton, in lieu of the subsidy granted by chapter 4 of 1894;

385. To the Pontiac Pacific Junction Railway Company, for 7½ miles of their railway from Hull to Aylmer, in lieu of the subsidy granted by chapter 2 of 1890;

386. To the Schomberg and Aurora Railway Company, for 15 miles of their railway from a point on the Grand Trunk Railway between King and Newmarket to Schomberg, in the province of Ontario;

387. To the Tilsonburg, Lake Erie and Pacific Railway Company, for $3\frac{50}{100}$ miles of their railway from the present terminus, through Tilsonburg to the Michigan Central Railway, in the province of Ontario.

388. To the Ottawa, Arnprior and Parry Sound Railway Company, for 52 miles of their railway, from the crossing of the Northern Pacific Junction Railway to 55 miles west of Barry's Bay, and also for 4 miles of their railway across Parry Island;

389. To the Pembroke Southern Railway Company, for 20 miles of their railway from Pembroke to Golden Lake, in the province of Ontario:

390. To the Ontario and Rainy River Railway Company, for 80 miles of their railway from the Port Arthur, Duluth and Western Railway to Rainy Lake, in the province of Ontario;

391. To the Strathroy and Western Counties Railway Company, for 7 miles of their railway, commencing at a point at or near Caradoc Station on the Canadian Pacific Railway and extending to the town of Strathroy;

392. To the Phillipsburg Railway and Quarry Company, for $\frac{66}{100}$ mile of their railway from the end of the subsidized section to the government wharf at Phillipsburg;

393. To the United Counties Railway Company, for 1 mile of their railway from Johnson to St. Grégoire Station, in the province of Quebec;

394. To the St. Lawrence and Adirondack Railway Company, for 13½ miles of their railway from Beauharnois to Caughnawaga, in the province of Quebec;

395. To the East Richelieu Valley Railway Company, for 24 miles of their railway from Iberville to St. Thomas, boundary of Missisquoi County, in the province of Quebec;

396. To the Portage du Fort and Bristol Branch Railway Company, for 15 miles of their railway to a point at or near Shawville, in the county of Pontiac;

397. For a railway from a point at or near Windsor Junction, on the Intercolonial Railway, to Upper Musquodoboit, for a distance of 40 miles;

398. To the St. Stephens and Milltown Railway Company, for $1\frac{14}{100}$ mile of their railway from Milltown to St. Stephen, in the province of New Brunswick;

399. For a railway from Sunny Brae to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysboro', in the province of Nova Scotia, a distance of 65 miles;

400. For a railway from Port Hawkesbury, Nova Scotia, to Port Hood and Broad Cove, 53 miles, in lieu of the subsidy granted by chapter 4 of 1894;

401. For a railway from a point on the Central Railway in the county of Lunenburg, Nova Scotia, to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles;

402. For a railway from Indian Garden on the line of the Central Railway, to Shelburne, in the province of Nova Scotia, a distance of 35 miles;

403. To the Coast Railway Company of Nova Scotia, for 61 miles of their railway from Yarmouth to Port Clyde, in the province of Nova Scotia;

404. For a railway from Brookfield Station on the Intercolonial Railway to Eastville, 30 miles;

405. To the Great Northern Railway Company, for 35 miles of their railway from St. Jérôme, in the province of Quebec, to Hawkesbury, in the province of Ontario;

406. To the Drummond County Railway Company, for 42½ miles of their railway from Moose Park to Chaudière River, provided that the amount of the said subsidy shall be refunded to the Government of Canada in the event of the company's railway from Ste. Rosalie to Chaudière River being purchased or leased for a term of years by the government.

3. The Governor in Council may grant the subsidies hereinafter mentioned to the railway companies and towards the construction of the railways also hereinafter mentioned, that is to say:—

407. To the Great Northern Railway Company, for 67 miles of their railway between Montcalm and its junction with the Lower Laurentian Railway near St. Tite, in the vicinity of the St. Maurice River, the balance remaining unpaid of the subsidies granted by chapter 2 of 1893, and by chapter 4 of 1894, between these points, a subsidy not exceeding $3,200 per mile, nor exceeding in the whole..... $ 182,400 00

408. To the Pontiac Pacific Junction Railway Company, for 85 miles of their railway from Aylmer to Pembroke, also for bridging the Ottawa River, the balance remaining unpaid of the subsidy granted by chapter 8 of 1884, and by chapter 4 of 1894, not exceeding..... 114,272 00

409. To the Ottawa and Gatineau Railway Company, for 62 miles of their railway from Hull towards Désert, in the province of Quebec, the balance remaining unpaid of the subsidy granted by chapter 2 of 1893, not exceeding in the whole..... 35,872 00

410. To the Grand Trunk Railway Company of Canada, for a subsidy towards the rebuilding and enlargement of the Victoria Bridge at Montreal over the St. Lawrence River, 15 per cent upon the amount expended thereon, not exceeding..... 300,000 00

411. To the Montfort Colonization Railway Company, for 33 miles of their railway from Montfort Junction to Arundel, in the province of Quebec, a subsidy not exceeding $2,000 per mile, nor exceeding in the whole..... 66,000 00

412. To the Irondale, Bancroft and Ottawa Railway Company, the balance remaining unpaid of the subsidy for the last five miles of the company's railway; the eastern terminus to be either at the village of Bancroft or at some point near the Hastings Road, in the township of Herschell, in lieu of the subsidy granted by chapter 2 of 1893, not exceeding in the whole..... 16,000 00

413. To the Great Northern Railway Company, towards the construction of a railway bridge over the Ottawa River at Hawkesbury, 15 per cent upon the amount expended thereon, not exceeding..... 52,500 00

414. For a railway and traffic bridge over the Ottawa River at Nepean Point, between the city of Ottawa and the city of Hull, 15 per cent upon the amount expended thereon, not exceeding..... 112,500 00

4. The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as are approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and

upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

5. The granting of such subsidies respectively shall be subject to such conditions for securing such running powers or traffic arrangements and other rights as will afford all reasonable facilities and equal mileage rates to all railways connecting with those so subsidized, as the Governor in Council determines.

6. The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to subsidies with respect of which it is hereinbefore otherwise provided.

7. Any company receiving a subsidy as aforesaid, in excess of $3,200 per mile, shall be bound to carry Her Majesty's mails for a term of ten years free of charge over the portion of railway subsidized.

By the Special Act 60-61 Victoria, Chapter 5, 1897. *(Assented to 29th June, 1897.)*

1. Subject to the conditions hereinafter mentioned, the Governor in Council may grant to the Canadian Pacific Railway Company a subsidy towards the construction of a railway from Lethbridge, in the district of Alberta, through the Crow's Nest Pass to Nelson, in the province of British Columbia (which railway is hereinafter called "the Crow's Nest Line,") to the extent of eleven thousand dollars per mile thereof, and not exceeding in the whole the sum of three million six hundred and thirty thousand dollars, payable by instalments on the completion of each of the several sections of the said railway of the length respectively of not less than ten miles, and the remainder on the completion of the whole of the said railway; provided that an agreement between the Government and the company is first entered into in such form as the Governor in Council thinks fit, containing covenants to the following effect, that is to say:—

On the part of the company:

(*a*.) That the company will construct or cause to be constructed, the said railway upon such route and according to such descriptions and specifications and within such time or times as are provided for in the said agreement, and, when completed, will operate the said railway for ever;

(*b*.) That the said line of railway shall be constructed through the town of Macleod, and a station shall be established therein, unless the Governor in Council is satisfied by the company that there is good cause for constructing the railway outside the limits of the said town, in which case the said line of railway shall be located and a station established at a distance not greater than five hundred yards from the limits of the said town;

(*c*.) That so soon as the said railway is opened for traffic to Kootenay Lake, the local rates and tolls on the railway and on any other railway used in connection therewith and now or hereafter owned or leased by or operated on account of the company south of the company's main line in British Columbia, as well as the rates and tolls between any point on any such line or lines of railway and any point on the main line of the company throughout Canada, or any other railway owned or leased by or operated on account of the company, including its lines of steamers in British Columbia, shall be first approved by the Governor in Council or by a railway commission, if and when such commission is established by law, and shall at all times thereafter and from time to time be subject to revision and control in the manner aforesaid;

(*d*.) That a reduction shall be made in the general rates and tolls of the company as now charged, or as contained in its present freight tariff, whichever rates are now the lowest, for carloads or otherwise, upon the classes of merchandise hereinafter mentioned, westbound, from and including Fort William and all points east of Fort

William on the company's railway to all points west of Fort William on the company's main line, or on any line of railway throughout Canada owned or leased by or operated on account of the company, whether the shipment is by all rail line or by lake and rail, such reduction to be to the extent of the following percentages respectively, namely :—

Upon all green and fresh fruits, 33⅓ per cent ;

Coal oil, 20 per cent ;

Cordage and binder twine, 10 per cent ;

Agricultural implements of all kinds, set up or in parts, 10 per cent ;

Iron, including bar, band, Canada plates, galvanized, sheet, pipe, pipe-fittings, nails, spikes and horse shoes, 10 per cent ;

All kinds of wire, 10 per cent ;

Window glass, 10 per cent ;

Paper for building and roofing purposes, 10 per cent ;

Roofing felt, box and packing, 10 per cent ;

Paints of all kinds and oils, 10 per cent ;

Live stock, 10 per cent ;

Wooden ware, 10 per cent ;

Household furniture, 10 per cent ;

And that no higher rates than such reduced rates or tolls shall be hereafter charged by the company upon any such merchandise carried by the company between the points aforesaid ; such reductions to take effect on or before the first of January, one thousand eight hundred and ninety-eight ;

(*e.*) That there shall be a reduction in the company's present rates and tolls on grain and flour from all points on its main line, branches or connections, west of Fort William to Fort William and Port Arthur and all points east, of three cents per one hundred pounds, to take effect in the following manner :—One and one-half cent per one hundred pounds on or before the first day of September, one thousand eight hundred and ninety-eight, and an additional one and one-half cent per one hundred pounds on or before the first day of September, one thousand eight hundred and ninety-nine ; and that no higher rates than such reduced rates or tolls shall be charged after the dates mentioned on such merchandise from the points aforesaid ;

(*f.*) That the Railway Committee of the Privy Council may grant running powers over the said line of railway and all its branches and connections, or any portions thereof, and all lines of railway now or hereafter owned or leased by or operated on account of the company in British Columbia south of the company's main line of railway, and the necessary use of its tracks, stations and station grounds, to any other railway company applying for such grant upon such terms as such committee may fix and determine, and according to the provisions of The Railway Act and of such other general Acts relating to railways as are from time to time passed by Parliament ; but nothing herein shall be held to imply that such running powers might not be so granted without the special provision herein contained ;

(*g.*) That the said railway, when constructed, together with that portion of the company's railway from Dunmore to Lethbridge, and all lines of railway, branches, connections and extensions in British Columbia south of the main line of the company in British Columbia shall be subject to the provisions of The Railway Act and of such other general Acts relating to railways as are from time to time passed by Parliament ;

(*h.*) That if the company or any other company with whom it shall have any arrangement on the subject shall, by constructing the said railway or any part of it, as stipulated for in the said agreement, become entitled to and shall get any land as a subsidy from the Government of British Columbia, then such lands, excepting therefrom those which in the opinion of the Director of the Geological Survey of Canada (expressed in writing) are coal-bearing lands, shall be disposed of by the company or by such other company to the public according to regulations and at prices not exceeding these prescribed from time to time by the Governor in Council, having regard to the then existing provincial regulations applicable thereto ; the expression "lands" including all mineral and timber thereon which shall be disposed of as aforesaid, either with or without the land, as the Governor in Council may direct :

(*i.*) That if the company or any other company with whom it shall have any arrangement on the subject shall, by constructing the said railway or any part of it as stipulated for in the said agreement, become entitled to and shall get any lands as a subsidy from the Government of British Columbia which in the opinion of the Director of the Geological Survey of Canada (expressed in writing) are coal-bearing lands, then the company will cause to be conveyed to the Crown, in the interest of Canada, a portion thereof to the extent of fifty thousand acres, the same to be of equal value per acre as coal lands with the residue of such lands. The said fifty thousand acres to be selected by the Government in such fair and equitable manner as may be determined by the Governor in Council, and to be thereafter held or disposed of or otherwise dealt with by the Government as it may think fit on such conditions, if any, as may be prescribed by the Governor in Council, for the purpose of securing a sufficient and suitable supply of coal to the public at reasonable prices, not exceeding two dollars per ton of two thousand pounds free on board cars at the mines.

And on the part of the Government, to pay the said subsidy by instalments as aforesaid.

2. The company shall be bound to carry out in all respects the said agreement, and may do whatever is necessary for that purpose.

3. In order to facilitate such financial arrangements as will enable the company to complete the railway as aforesaid without delay and to acquire and consolidate with it the railway from Dunmore to Lethbridge, hereinafter called "the Alberta Branch," which, under the authority of chapter thirty-eight of the statutes of 1893, it now operates as lessee, and is under covenant to purchase, the company may issue bonds which will be a first lien and charge and be secured exclusively upon the said Alberta Branch and Crow's Nest Line together in the same way and with the same effect as if both the said pieces of railway to be so consolidated were being built by the company as one branch of its railway within the meaning of section one of chapter fifty-one of the statutes of 1888, and that section shall apply accordingly, such first lien to be subject to the payment of the purchase money of the Alberta Branch, as provided for in the said covenant to purchase.

By the Act 62–63 Vic., chapter 7 (*Assented to 11th August, 1899*).

1. In this Act, unless the context otherwise requires, the expression "cost" means the actual, necessary and reasonable cost and shall include the amount expended upon any bridge, up to and not exceeding $25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of $3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than $15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than $15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of $3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile :—

415. To the Central Ontario Railway Company, for an extension of their railway from, or from near, either Coe Hill or Rathbun Station on the company's railway to, or near to Bancroft, not exceeding 21 miles, in lieu of the subsidy granted by chapter 5 of 1892 ;

416. To the Great Northern Railway Company, for a railway between Montcalm and St. Tite Junction, on the Lower Laurentian Railway, Quebec, not exceeding 53½ miles; and for a branch from their main line to Shawenegan Falls, Quebec, not exceeding 6½ miles.

417. To the Phillipsburg Railway and Quarry Company, shortage in the extension of their railway from a point on the company's line at or near the end of the subsidized section, to the government wharf at Phillipsburg, Quebec, not exceeding $\frac{66}{100}$ of a mile;

418. To the Strathroy and Western Counties Railway Company, for a line from Strathroy, Ontario, via Adelaide and Arkona, to either Forest, Tedford, or Park Hill, not exceeding 24 miles, in lieu of the subsidy granted by chapter 4 of 1894;

419. To the St. John Valley and Rivière du Loup Railway Company, for a line of railway from Fredericton, in the county of York, New Brunswick, to Woodstock, in the county of Carleton, not exceeding 59 miles;

420. For a railway from Port Hawkesbury, on the Strait of Canso, Nova Scotia, to St. Peter's, not exceeding thirty miles;

421. For a railway from Windsor, Nova Scotia, to Truro, via the township of Clifton, not exceeding 58 miles, in lieu of the subsidy granted by chapter 4 of 1894;

422. For a railway from a point at or near Brookfield Station, Nova Scotia, on the Intercolonial Railway, to Eastville, not exceeding 25 miles, in lieu of the subsidy granted by chapter 4 of 1897;

423. For a railway from Cross Creek Station, on the Canada Eastern Railway, to Stanley Village, New Brunswick, not exceeding 6 miles;

424. For a railway from the village of St. Rémi to Stottville or some point on the Delaware and Hudson Railway (Grand Trunk) in the parish of St. Paul de l'Ile aux Noix, not exceeding 19 miles;

425. For a railway between Pontypool and Bobcaygeon, via Lindsay, Ontario, not exceeding 40 miles.

426. To the Pontiac Pacific Junction Railway Company, for a railway from Aylmer to Hull, Quebec, not exceeding 9 miles, in lieu of the subsidy granted by chapter 4 of 1897;

427. To the Portage du Fort and Bristol Branch Railway Company, for a branch line from a point on the Pontiac Pacific Junction Railway at or near the village of Quyon, towards the village of Portage du Fort, Quebec, not exceeding 15 miles, in lieu of the subsidy granted by chapter 4 of 1897;

428. To the Orford Mountain Railway Company, for a branch from their railway from a point between Lawrenceville and Eastman to Waterloo, not exceeding 13 miles;

429. To the Atlantic and Lake Superior Railway Company, for an extension of their railway from Caplin to Paspebiac, Quebec, not exceeding 30 miles;

430. To the United Counties Railway Company, for a railway from St. Robert Junction to Sorel, 6½ miles, (this subsidy to be payable only in the event of adequate running rights over the South-eastern Railway between the two points above mentioned not being granted to the first mentioned Company on terms to be approved by the Railway Committee of the Privy Council,) and from Mount Johnson to St. Grégoire Station, 1 mile, not exceeding 7½ miles.

431. For a railway from a point on the Central Railway in the county of Lunenburg, Nova Scotia, to the town of Liverpool, via the village of Caledonia, or to the village of Caledonia, via Liverpool, or for any part thereof, the whole distance not exceeding 62 miles;

432. For a railway from Indian Gardens, Queen's County, Nova Scotia, to Shelburne, in the said province, a distance of 35 miles;

433. The subsidy which the Ontario and Rainy River Railway Company is entitled to receive under chapter 4 of 1897, shall be $6,400 per mile for the 80 miles mentioned in the said Act; not exceeding in all $512,000.

434. To the Bay of Quinté Railway Company, for such extensions, branches or additions to their system as will enable the said Company to connect their lines of railway or connecting lines with iron or other mines or mineral or wood lands in the counties of Peterborough, Northumberland, Hastings, Lennox and Addington, Frontenac or Leeds, payable in instalments regulated by the length of each of the said extensions or branches or additions, as the case may be, in lieu of part of the balance remaining unpaid of the subsidy granted to the Kingston, Napanee and Western Railway Company, by chapter 5 of 1892, but not exceeding $3,200 per mile for 10 miles, nor exceeding in the whole $32,000;

435. To the Quebec and Lake St. John Railway Company, for 12 miles of their railway from the end of their line at deep water on the Chicoutimi branch of their railway, to Ha Ha Bay, in the lieu of the subsidy for the 12 miles granted by chapter 4 of 1894;

436. For a line of railway from Hawkesbury, Ontario, to South Indian, not exceeding 35 miles;

437. For a railway from Sault Ste. Marie, Ontario, towards Michipicoten River and harbour and towards the main line of the Canadian Pacific Railway, not exceeding 40 miles;

438. For a branch line of railway from the main line of the Ottawa, Arnprior and Parry Sound Railway to the town of Parry Sound, Ontario, not exceeding 5 miles;

439. For a railway from the village of Haliburton, via the village of Whitney, towards the town of Mattawa, Ontario, not exceeding 20 miles;

440. For an extension of the Tilsonburg, Lake Erie and Pacific Railway, from Tilsonburg to Ingersoll or Woodstock, Ontario, not exceeding 28 miles;

441. To the South Shore Railway Company, from Sorel Junction along the South Shore to Lotbinière, Quebec, a distance not exceeding 82 miles;

442. To the Massawippi Valley Railway Company for an extension of their railway to the village of Stanstead Plain, Quebec, not exceeding 2½ miles;

443. For a railway from Port Hawkesbury on the Strait of Canso, to Caribou Cove, Nova Scotia, a distance of 10 miles;

444. For a railway from Fort Frances, Ontario, westerly to a point at or near the mouth of Rainy River, a distance not exceeding 70 miles;

445. To the Central Railway Company of New Brunswick, for an extension of their line of railway from Newcastle Coal Fields to Gibson, New Brunswick, not exceeding 30 miles;

446. To the Canadian Northern Railway Company, for a railway from a point on the present line of the Winnipeg Great Northern Railway north of Swan River to Prince Albert, North-west Territories, not exceeding 100 miles;

447. For a railway from some point near Antler Station to a point near Moose Mountain, Manitoba, not exceeding 50 miles;

448. For a railway from Sunnybrae to Country Harbour, and from a point at or near Country Harbour Cross Roads to Guysborough, Nova Scotia, to make up the deficiency in mileage between points mentioned and subsidized by chapter 4 of 1897, additional mileage not exceeding 15 miles;

449. For a railway from Port Clyde towards Lockeport, in the province of Nova Scotia, not exceeding 20 miles;

450. For a railway from a point on the Intercolonial Railway at or near Halifax towards the Central Railway in the county of Lunenburg, not exceeding 20 miles;

451. For a railway from Labelle, in the province of Quebec, in a north-westerly direction, to Nomininguc, via Notre Dame de l'Annonciation, a distance not exceeding 22 miles;

452. For a railway from Owen Sound, in the province of Ontario, to Meaford, not exceeding 21 miles;

453. To the Ottawa and Gatineau Railway Company, for their line of railway in and through the city of Hull, Quebec, not exceeding 4 miles;

454. To the Western Alberta Railway Company, from a point on the United States boundary, west of Range 27, north-westerly towards Anthracite, in the district of Alberta, not exceeding 50 miles ;

455. To the Edmonton, Yukon and Pacific Railway Company, for a railway from the town of South Edmonton, North-west Territories, to North Edmonton, and thence westerly towards the Yellow Head Pass, a distance not exceeding 50 miles ;

456. To the Restigouche and Western Railway Company, in addition to the 20 miles subsidized by chapter 4 of 1897, and in continuation from the westerly end of the said 20 miles towards the St. John River, a further distance not exceeding 15 miles, and for the company's railway from a point on the St. John River, New Brunswick, at or near Grand Falls, or St. Leonard, or between Grand Falls and St. Leonard, and extending easterly towards Campbellton, such point to be approved by the Governor in Council, a distance of 12 miles ; in all not exceeding 27 miles ;

457. For a railway in extension of the St. Francis branch of the Temiscouata Railway to the mouth of the St. Francis River, a distance not exceeding 3 miles ;

458. To the Canada Eastern Railway Company, for a line of railway from Nelson, New Brunswick, to connect with the company's main line running into Chatham, to complete the connection from Nelson to such main line, not exceeding in the whole $2\frac{1}{4}$ miles ;

459 To the Bay of Quinté Railway Company, for an extension of their line in a westerly direction from a point at or near Richmond boundary road near Deseronto for a distance not exceeding 2 miles ; also for an extension of their line from its present terminus at Tweed in a northerly direction for a distance of 2 miles, and for an extension of their line from the end of the last 2 miles mentioned in a northerly direction for a distance not exceeding 3 miles—in all 7 miles ; subsidies payable on each of the sections mentioned as each of such sections is completed ;

460. To the Ontario, Belmont and Northern Railway Company, for an extension of their railway from its present terminus at Iron Mines in a north-westerly direction, a distance not exceeding 5 miles ; and also for an extension of the company's railway southerly, from the present southern terminus thereof to the Central Ontario Junction of the Canadian Pacific Railway, a distance not exceeding 2 miles ; but the last mentioned aid for the said 2 miles of railway shall not be granted in case the Railway Committee of the Privy Council finds that adequate running powers on fair terms can be secured to the company over that portion of the line of the Central Ontario Railway between the present southerly end of the Ontario, Belmont and Northern Railway and the Canadian Pacific Railway Company's line at Central Ontario Junction ; subsidies payable on each of the sections mentioned as each of such sections is completed ;

461. For a line of railway from a point on the Pembroke Southern Railway at or near Golden Lake, Ontario, towards a point on the Irondale, Bancroft and Ottawa Railway at or near Bancroft, not exceeding 20 miles ;

462. For a line of railway from Paspebiac, Quebec, to Gaspé in the said province, a distance not exceeding 82 miles ;

463. To the Lake Erie and Detroit River Railway Company, for a line of railway from Ridgetown, Ontario, to St. Thomas, in the said province, a distance not exceeding 44 miles ; this subsidy to be payable only in the event of adequate running rights over the Canada Southern Railway between the two points above mentioned not being granted to the first mentioned company on terms to be approved by the Railway Committee of the Privy Council ;

464. To the Kingston and Pembroke Railway Company, for the construction of branches from the Company's main line to the iron mine at Bluff Point and to the Martele mine in the county of Renfrew, not exceeding 5 miles ;

465. For a railway from the town of Parry Sound extending northerly towards Sudbury, a distance not exceeding 20 miles.

3. The Governor in Council may grant the subsidies hereinafter mentioned towards the construction of the railways also hereinafter mentioned, that is to say :—

466. The Ontario and Rainy River Railway Company, for a railway from a point 80 miles west of Stanley Station, on the Port Arthur, Duluth and Western Railway, to Fort Frances, for a distance of 140 miles, at $6,400 per mile, not exceeding in the whole	$ 896,000 00
467. To the Quebec Bridge Company, towards the construction of a railway bridge over the St. Lawrence River, at Chaudière Basin, near Quebec, one million dollars, 40 per cent of which amount may be paid on monthly progress estimates, approved by the Government engineers, of materials delivered and work done...	1,000,000 00
468. To the South Shore Railway Company, towards the restoration and renewal of the railway bridge over the Yamaska River at Yamaska, Quebec	50,000 00
469. Towards the construction of a bridge over the Richelieu River at Sorel, 15 per cent upon the amount expended thereon, not exceeding	35,000 00
470. Towards the construction of a bridge across the St. Francis River, 15 per cent of the amount expended thereon, not exceeding	50,000 00
471. Towards the construction of a bridge across the Nicolet River, 15 per cent upon the amount expended thereon, not exceeding	15,000 00
472. To the Midland Railway Company, Limited, towards the construction of a bridge across the Shubenacadie River, 15 per cent upon the amount expended thereon, not exceeding	33,750 00
473. To the Great Northern Railway Company, towards the construction of a bridge across the St. Maurice River, 15 per cent upon the amount expended thereon, not exceeding	16,425 00
474. Also towards the construction of a bridge across the Rivière du Loup, 15 per cent upon the amount expended thereon, not exceeding	15,000 00
475. Also towards the construction of a steel bridge and viaduct at the Maskinongé River, 15 per cent upon the amount expended thereon, not exceeding	15,000 00

4. The subsidies granted to the Ontario and Rainy River Railway Company, the Canadian Northern Railway Company and the Edmonton, Yukon and Pacific Railway Company are granted upon the condition, and, if received and paid under the authority of this Act to the above mentioned companies respectively, shall be received upon the condition, that the said companies shall not, nor shall any of them, at any time amalgamate with, or lease its line or lines to, any railway company other than those mentioned in this section, except as may be authorized by Parliament; nor shall any of the said railways be leased to or operated by any other company; nor shall any of the said companies make an agreement for a common fund or for pooling its receipts with any other railway company; and any such lease, amalgamation or agreement shall be absolutely void, excepting in so far as such agreement may extend to traffic or running arrangements which have been approved by the Governor in Council.

5. The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as are approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of

which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the Government, which agreement the Government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

6. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with those so subsidized reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control at all times over the rates and tolls to be levied and imposed by any of the companies or upon any of the railways hereby subsidized.

7. The said subsidies respectively shall be payable out of the Consolidated Revenue Fund of Canada, by instalments, on the completion of each section of the railway of not less than ten miles, proportionate to the value of the portion so completed in comparison with that of the whole work undertaken, to be established by the report of the said Minister, or upon the completion of the work subsidized—except as to subsidies with respect to which it is hereinbefore otherwise provided.

8. Every company receiving a subsidy under this Act, its successors or assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, material and mails over the portion of its line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars, properly equipped, for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the Government for which such service is being performed and the company performing it, and in case of disagreement, then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of subsidy received by the company under this Act.

9. As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the said railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.

By the Act 63-64 Vic., chapter 8 (*Assented to July 18, 1900*).

1. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost and shall include the amount expended upon any bridge, up to and not exceeding $25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway nor the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his

opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of $3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than $15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than $15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of $3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile :—

476. For a railway from a point at or near the junction of the Irondale, Bancroft and Ottawa Railway and the Grand Trunk Railway to the village of Minden, in the county of Haliburton, Ontario, not exceeding 12 miles.

477. To the Strathroy and Western Counties Railway Company, for a railway commencing at a point at or near Caradoc station, on the Canadian Pacific Railway, and extending to the town of Strathroy, Ontario, not exceeding 7 miles.

478. For a line of railway from a point on the Pembroke Southern Railway at or near Golden Lake, towards a point on the Irondale, Bancroft and Ottawa Railway at or near Bancroft, Ontario, for the further extension of such railway westerly from the western terminus of the 20 miles subsidized by chapter 4 of 1897, for a distance not exceeding 20 miles.

479. To the Algoma Central Railway Company for 25 miles of its line of railway from its terminus at Michipicoten Harbour, Lake Superior, towards the main line of the Canadian Pacific Railway, and for a further extension of this company's line of railway from Sault Ste. Marie towards Michipicoten River and Harbour, Ontario, towards the main line of the Canadian Pacific Railway, 25 miles in all, not exceeding 50 miles.

480. To the Central Ontario Railway Company, for a further extension of their railway from, at or near Bancroft to a point on the Canada Atlantic Railway between Whitney and Barry's Bay, Ontario, not exceeding 20 miles.

481. To the Manitoulin and North Shore Railway Company, for a line of railway between Little Current, on Manitoulin Island, and Sudbury, Ontario, on the Canadian Pacific Railway, the company undertaking to bridge between Little Current and the main land, the bridge to be so constructed and maintained as to afford suitable facilities, in the opinion of the Minister of Railways and Canals, for free vehicular and passenger traffic, the same as upon a public highway, the work to be begun and prosecuted from Little Current and Sudbury, one-half of the subsidy to be applicable, as earned, in respect of the work beginning at Little Current and carried on towards Sudbury, and one-half thereof to be applicable, as earned, in respect of the work beginning at Sudbury and carried on towards Little Current, the course of the line of railway to cross the Sault Ste. Marie branch of the Canadian Pacific Railway, not exceeding 66 miles.

482. For a railway from Bracebridge, in Muskoka, to a point at or near Baysville, Ontario, not exceeding 15 miles.

483. For a railway beginning at a point northerly 20 miles from Parry Sound, and extending from that point to the French River, Ontario, not exceeding 35 miles.

484. For a railway from a point 20 miles north-easterly from the village of Haliburton, via the village of Whitney, towards the village of Mattawa, Ontario, not exceeding 40 miles.

485. To the Kingston and Pembroke Railway Company, for a branch line of railway to iron mines in Bedford township, Ontario, not exceeding 12 miles.

486. To the Thousand Islands Railway Company for an extension of their railway from the present northerly terminus to a point easterly thereof, not exceeding 2 miles ;

And also for an extension from a point on the railway to connect their railway with the Brockville, Westport and Sault Ste. Marie Railway, the Bay of Quinté Railway, the Kingston, Smith's Falls and Ottawa Railway, or the waters of the Rideau Canal, the balance remaining of the subsidy granted by chapter 5 of 1892, not exceeding 9½ miles.

487. For a railway from Dyment, on the Canadian Pacific Railway, to the New Klondike mining district, Ontario, not exceeding 7 miles.

488. To the Schomberg and Aurora Railway Company, for an extension of their line from its easterly terminus to a point at or near Bond's Lake, Ontario, not exceeding 4 miles.

489. To the Nipissing and James Bay Railway Company, for a railway from, at or near North Bay station, on the Canadian Pacific Railway, towards James Bay, or Lake Tamagaming, Ontario, not exceeding 20 miles.

490. In aid of the Ottawa and New York Railway Company's bridge over the St. Lawrence River, and for the Canadian portion of such bridge, a sum not exceeding $90,000.

491. To the Grand Trunk Railway Company of Canada, towards the cost of the rebuilding and enlargement of the Victoria Bridge over the St. Lawrence River, Quebec, in addition to the amount received by the company on account of the subsidy granted by chapter 4 of 1897, viz: $270,000, to make up the grant in aid of the undertaking to $500,000, upon condition that the tolls upon the bridge for passenger and vehicular traffic shall be subject to the approval of the Governor in Council, a sum not exceeding $230,000.

492. For a railway and traffic bridge over the Ottawa River at Nepean Point, between the city of Ottawa, Ontario, and the city of Hull, Quebec, upon condition that the bridge be so constructed as to provide suitable facilities, to the satisfaction of the Minister of Railways and Canals, for free vehicular and foot passenger traffic, the same as upon a public highway, in addition to the $112,500 already granted,—and, notwithstanding anything in the said Act, the subsidy hereby granted, together with the grant of $112,500 under chapter 4 of 1897, shall be paid upon the completion of the bridge and its approaches, upon the Chief Engineer's report of such completion, and the recommendation of the Minister,—a sum not exceeding $100,000.

493. To the Canadian Northern Railway Company, in further extension of their railway north of Swan River towards Prince Albert, North-west Territories, in addition to the grant by chapter 7 of 1899, a further mileage not exceeding 100 miles.

494. For a railway from the westerly end of the Waskada branch of the Canadian Pacific Railway, Manitoba, further westward, not exceeding 20 miles.

495. For a railway from a point on the Alberta Railway and Coal Company's Railway towards Cardston, Alberta, N.W.T., for 30 miles of railway at $2,500 per mile.

496. To the Kaslo and Lardo-Duncan Railway Company, for a railway from Duncan Lake towards Lardo or Arrow Lake, British Columbia, or from Lardo to Arrow Lake, not exceeding 30 miles.

497. To the Restigouche and Western Railway Company, for the company's railway, in addition to the 15 miles subsidized by chapter 7 of 1899, on the easterly section of the line, and in continuation from the westerly end of the said 15 miles, a further distance of 15 miles towards the St. John River; and for the said railway, in addition to the 12 miles subsidized by the said chapter on the westerly section of the said line, a further distance from the easterly end thereof of 15 miles, towards Campbellton, N.B., not exceeding 30 miles.

498. For a line of railway from St. Charles Junction on the Intercolonial Railway towards the St. Francis branch of the Temiscouata Railway, Quebec, not exceeding 45 miles, and from the mouth of the St. Francis River, N.B., westerly towards St. Charles Junction, 15 miles, in all not exceeding 60 miles.

499. For a line of railway from Bristol, in the county of Carleton, New Brunswick, on the Canadian Pacific Railway, easterly, a distance not exceeding 17 miles.

500. For a line of railway from Shediac, county of Westmorland, New Brunswick, to Shemogue, and towards Cape Tormentine, in the said county, a distance not exceeding 38 miles.

501. For a railway from Lockeport, Nova Scotia, to Sable River, or other convenient point of railway connection, not exceeding 20 miles.

502. To the Inverness and Richmond Railway Company, for a railway in extension of the company's line northward from Broad Cove to Cheticamp, C.B., Nova Scotia, not exceeding 40 miles.

503. For a railway from Bridgetown to Victoria Beach, Nova Scotia, not exceeding 30 miles.

504. For a railway from a point on the Intercolonial Railway, Pictou branch, to Kempt Town, county of Colchester, Nova Scotia, not exceeding 4½ miles.

505. For a railway from Brazil Lake, on the Dominion Atlantic Railway, to Kemptville, Nova Scotia, not exceeding 11 miles.

506. To the Montfort and Gatineau Colonization Railway Company, to enable it to extend its railway from Arundel to a point in the municipality of the united townships of Preston and Hartwell, province of Quebec, not exceeding 30 miles.

507. To the Chateauguay and Northern Railway Company, for a railway from a point in Hochelaga ward, Montreal, to a point on the Great Northern Railway, in or near the town of Joliette, passing near the town of L'Assomption, Quebec, together with a spur into the said town, not exceeding 42 miles.

508. To the Chateauguay and Northern Railway Company, for a single-track standard railway bridge, with two roadways 10 feet wide, for free vehicular and foot passenger traffic, the same as upon a public highway, from Bout L'Isle to Charlemange, at the junction of the Ottawa and St. Lawrence rivers, $150,000.

509. To the Chateauguay and Northern Railway Company, towards the construction of a bridge across the Lac Ouareau River, $15,000.

510. To the Arthabaska Railway Company, for a railway from Victoriaville to West Chester, province of Quebec, a distance not exceeding 12 miles.

511. To the Great Northern Railway Company, for a branch line from the town or from near the town of Joliette towards Ste. Emélie, touching the parishes of Ste. Beatrix and Ste. Jean de Matha, not exceeding 20 miles.

512. For a railway from Farnham, province of Quebec, to Frelighsburg and the International Boundary Line, not exceeding 21 miles.

513. Towards the construction of a railway bridge over the St. Francis River, in lieu of the grant under chapter 7 of 1899, at St. François du Lac, on the condition that the bridge, with approaches, be built so as to allow the municipalities to make use thereof, to establish and maintain a suitable roadway for the free passage of foot passengers, vehicles and animals, to be approved by the Minister of Railways and Canals, $50,000.

514. Towards the construction of a railway bridge over the Nicolet River at Nicolet, in lieu of the grant under chapter 7 of 1899, $15,000.

515. For a line of railway from Halifax towards a point on the Central Railway of Nova Scotia, in the county of Lunenburg, in addition to and in extension of the 20 miles subsidized by chapter 7 of 1899, not exceeding 20 miles.

3. The subsidies hereby granted and any subsidies heretofore granted under any Act of the Parliament of Canada, still in force, but not fully paid, towards the construction of any railway or bridge, shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless in this Act otherwise expressly provided, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:

(*a*) upon the completion of the work subsidized; or

(*b*.) by instalments on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or

(*c.*) upon progress estimates on the certificate of the Chief Engineer of Railways and Canals, that in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than sixty thousand dollars; or

(*d.*) with respect to (*b*) and (*c*), part one way, part the other.

4. The subsidies hereinbefore mentioned as to be granted to companies named for that purpose shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as are approved by the Governor in Council as having established to his satisfaction their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August next, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by Order in Council, and shall also be constructed according to descriptions and specifications and upon conditions to be approved by the Governor in Council, on the report of the Minister of Railways and Canals, and specified in an agreement to be made in each case by the company with the government, which agreement the government is hereby empowered to make; the location also of every such line of railway shall be subject to the approval of the Governor in Council.

5. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with those so subsidized reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control at all times over the rates and tolls to be levied and imposed by any of the companies or upon any of the railways hereby subsidized.

6. The Governor in Council may make it a condition of the subsidies hereby granted, or of any heretofore granted by any Act of Parliament as to which a contract has not yet been entered into between Her Majesty and the company for the construction of the railway, that the company shall lay its road with new steel rails made in Canada, if such rails are procurable in Canada of suitable quality upon terms as favourable as other rails can be obtained upon, of which the Minister of Railways and Canals shall be the judge.

7. Every company receiving a subsidy under this Act, its successors or assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the government of Canada transportation for men, supplies, material and mails over the portion of its line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars, properly equipped, for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the minister of the department of the government for which such service is being performed and the company performing it, and in case of disagreement then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of subsidy received by the company under this Act.

8. As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the said railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.

9. Paragraph 20 of section 2 of chapter 7 of the statutes of 1899 is amended by inserting after the word 'railway,' in the third line, the words 'or to connect the said lines.'

10. The subsidy provided for by chapter 7 of the statutes of 1899 towards the construction of a railway bridge over the St. Lawrence River at Chaudière Basin, near Quebec, shall be deemed to be applicable, as to one-third thereof, to the substructure and approaches, and as to two-thirds thereof to the superstructure, and the said subsidy may be paid upon that basis by authority of the Governor in Council, upon progress estimates to be furnished from time to time by the Chief Engineer of Government Railways and Canals, so that one-third of such subsidy, and no more, may be paid in respect of and upon completion of the masonry of the substructure and approaches of the said bridge, one-third, and no more, upon the work and material of one-half of the superstructure being done and supplied, in respect of such work and material, and the remaing one-third upon the completion of the whole work.

By the Act 1st Edward VII., chapter 7 (*Assented to May 23, 1901.*)

1. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge, up to and not exceeding $25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of terminals and right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of Government Railways, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

2. The Governor in Council may grant a subsidy of $3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than $15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than $15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of $3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile;—

516. For a line of railway from a point on the Intercolonial Railway at or near New Glasgow to Country Harbour, Nova Scotia, and from a point at or near Country Harbour Cross Roads to Guysborough, in lieu of the subsidies granted by 1897, cap. 4, and 1899, cap. 7, sec. 2, paragraph 34, not exceeding 80 miles.

517. To the Quebec and New Brunswick Railway Company, for a line of railway from a point at or near St. Charles or at or near Chaudière Junction or a point on the Quebec Central Railway, near St. Anselme, Quebec, towards the present terminus of the St. Francis Branch of the Témiscouata Railway, New Brunswick, not exceeding 45 miles, and for a line of railway from the mouth of the St. Francis River, New Brunswick, westerly towards Chaudière Junction, not exceeding 15 miles, in lieu of the subsidy granted by 1900, cap, 8, sec. 2, paragraph 23; also for a line of railway in extension of the St. Francis Branch of the Témiscouata Railway to the mouth of the St. Francis River, New Brunswick, in lieu of the subsidy granted by 1899, cap. 7, sec. 2, paragraph 43, not exceeding 3 miles; in all not exceeding 63 miles.

518. To the Montreal and Province Line Railway Company, for a line of railway from Farnham, Quebec, to Frelighsburg, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 37, not exceeding 19 miles.

519. For a line of railway from a point on the Intercolonial Railway at or near Windsor Junction to Upper Musquodoboit, in lieu of 1897, cap. 4, sec. 2, paragraph 23, not exceeding 40 miles.

520. For a line of railway from Pubnico, Nova Scotia, to Port Clyde or Clyde River, in lieu of the unexpended balance of subsidy granted by 1897, cap. 4, sec. 2, paragraph 29, not exceeding 31 miles.

521. To the Toronto, Lindsay and Pembroke Railway Company, for a line of railway from the western terminus of the 20 miles subsidized by 1899, cap. 7, sec. 2, paragraph 47, westerly towards Bancroft, not exceeding 20 miles, in lieu of the subsidy granted by 1900, cap. 8, sec., 2 paragraph 3; also from the terminus of previously subsidized lines at a point about 40 miles west of Golden Lake, westerly to Bancroft, not exceeding 11 miles; in all not exceeding 31 miles.

522. For a line of railway from Chipman Station, New Brunswick, to Gibson, in lieu of the subsidies granted by 1897, cap. 4, and 1899, cap. 7, sec. 2, paragraph 31, not exceeding 45 miles.

523. To the Inverness and Richmond Railway Company, for a line of railway from a point at or near Point Tupper on the Intercolonial Railway, to Broad Cove and Cheticamp, Nova Scotia, in lieu of the subsidies granted by 1897, cap. 4, 1899, cap. 7, sec. 2, paragraph 29, and 1900, cap. 8, sec. 2, paragraph 27, not exceeding 98 miles.

524. For a line of railway from Caplin to Paspebiac, Quebec, in lieu of the subsidy granted by 1899, cap. 7, sec. 2, paragraph 15, the subsidy contract to be entered into with the trustees or receivers under mortgage from the Atlantic and Lake Superior Railway Company, and to contain the conditions that the subsidy when earned shall be paid in the following manner:—

1st. To the Hamilton Bridge Works Company in payment for bridge superstructures on the said section of railway, when furnished and erected by that company, not to exceed $35,000;

2nd. For the completion of the road-bed and works incidental thereto;

3rd. Towards payment of overdue balances, pro rata, in settlement of claims for labour, boarding-house claims, and material and supplies furnished in connection with the construction of the said section of railway; in all not exceeding 30 miles.

525. To the Schomberg and Aurora Railway Company, for a line of railway from a point on the Grand Trunk Railway between King and Newmarket, Ontario, to Schomberg, in lieu of the subsidy granted by 1897, cap. 4, not exceeding 15 miles.

526. To the Ottawa and Gatineau Railway Company, for a line of railway from the end of the 62nd mile subsidized, towards Désert, in lieu of the subsidy granted by 1897, cap. 4, sec. 2, paragraph 5, not exceeding 20 miles.

527. To the Restigouche and Western Railway Company, for its line of railway from Campbellton on the Intercolonial Railway, New Brunswick, towards Grand Falls, in lieu of the subsidy granted by 1897, cap. 4, sec. 2, paragraph 10, not exceeding 20 miles.

528. To the Pontiac Pacific Junction Railway Company, for 36 miles of its railway from a point at or near Shawville, crossing the Ottawa River via Calumet Island to Pembroke, including the bridging of both channels of the Ottawa River at Calumet Island, 14 miles of which shall be in lieu of the unexpended balance of subsidy granted by 1897, cap. 4, sec. 3, paragraph 2, not exceeding $115,200.

529. To the Manitoulin and North Shore Railway Company, for its line of railway, from a point on its line of railway between Sudbury and Little Current to its junction with the line of the Algoma Central and Hudson Bay Railway, at or

near Goulais River, in addition to and in further extension of its railway subsidized by 1900, cap. 8, sec. 2, paragraph 6, an additional mileage not exceeding 130 miles.

530. For a line of railway from Grandique Ferry, Nova Scotia, to Arichat, not exceeding 8 miles.

531. To the Central Ontario Railway Company, for a further extension of its line of railway, subsidized by 1900, cap. 8, sec. 2, paragraph 5, northward, to a junction with the Canada Atlantic Railway, at or near Whitney, Ontario, not exceeding 20 miles.

532. To the Kingston and Pembroke Railway Company, for a line of railway from a point at or near Sharbot Lake, Ontario, via Lanark, to Carelton Place, not exceeding 41 miles.

533. To the Norwood and Apsley Railway Company, for a line of railway from Norwood, Ontario, to the village of Apsley, not exceeding 30 miles.

534. For a line of railway from a point on the Dominion Atlantic Railway at or near Wolfville, Nova Scotia, to the Government pier on the Basin of Minas, not exceeding one mile.

535. To the Algoma Central and Hudson Bay Railway Company, for a line of railway from Sault Ste. Marie to a point on the Canadian Pacific Railway at or near White River, in the district of Algoma, in extension of the subsidy granted to the Algoma Central Railway by 1899, cap. 8, sec. 2, paragraph 23, and by 1900, cap. 8, sec. 2, paragraph 4, a further and additional mileage not exceeding 135 miles.

536. For a line of railway from Bridgetown, Nova Scotia, to Middleton, in extension of the line subsidized by 1900, cap. 8, sec. 2, paragraph 28, not exceeding 11 miles.

537. For a line of railway from a point on the Grand Trunk Railway at or near Burk's Falls, Ontario, to the Maganetawan River, not exceeding two miles.

538. For a line of railway between Halifax and the Central Railway, Nova Scotia, from the end of the 40th mile from Halifax, subsidized by 1900, cap. 8, sec. 2, paragraph 40, to a junction with the Central Railway, Nova Scotia, not exceeding 30 miles.

539. For a line of railway from a point on the Algoma branch of the Canadian Pacific Railway at or near Bruce Lake Station, northerly to a point at or near Rock Lake, in the district of Algoma, not exceeding 9 miles.

540. For a line of railway from Roberval, Quebec, westward towards James Bay, not exceeding 60 miles.

541. For a line of railway from a point upon the Stonewall branch or the Selkirk branch of the Canadian Pacific Railway to Icelandic River by way of Gimli, not exceeding 35 miles.

542 To the Restigouche and Western Railway Company, for an extension of its line of railway from the 50th mile from Campbellton already subsidized, westward, to effect a junction with its line of railway subsidized 27 miles east from the St. John River, not exceeding 33 miles.

543. For a line of railway from Duncan Lake towards Lardo or Arrow Lake, British Columbia, or from Lardo to Arrow Lake, in lieu of the subsidy granted by 1900, cap. 8, sec. 2, paragraph 21, not exceeding 30 miles.

3. The Governor in Council may grant to the Ottawa and Gatineau Railway, for its unearned balance of subsidy upon the 62 miles of its line of railway from Hull towards Désert, granted by 1897, chap. 4, sec. 3, paragraph 3, a sum not exceeding $35,872.

4. The subsidies hereby authorized, and any subsidies heretofore authorized under any Act of Parliament of Canada still in force but not fully paid, towards the construction of any railway or bridge, shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the

Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(*a.*) upon the completion of the work subsidized; or

(*b.*) by instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or

(*c.*) upon progress estimates on the certificate of the Chief Engineer of Government Railways, that, in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than sixty thousand dollars; or

(*d.*) with respect to (*b.*) and (*c.*), part one way, part the other.

5. The subsidy of 66 miles granted to the Manitoulin and North Shore Railway Company for a line of railway between Little Current, on Manitoulin Island, and Sudbury, Ontario, by paragraph 6 of section 2 of chapter 8 of the statutes of 1900, may be contracted for with the company and paid, and the work may be begun and prosecuted in two sections, the first beginning at or near Victoria Mines, in the township of Denison, and extending to Sudbury, and thence north-easterly towards Lake Wahnapitae, not exceeding 33 miles; the second section beginning at Little Current and extending to and connecting with the Canadian Pacific Railway at or near Stanley, in the township of Baldwin, on the Canadian Pacific Railway, not exceeding 31 miles; subject, however, to the company carrying out the undertakings contained in paragraph 6 of section 2 of chapter 8 of the statutes of 1900.

6. The subsidies hereinbefore authorized to be granted to companies named, shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August, 1901, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed upon a location, and according to descriptions, conditions, and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make.

7. The granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Governor in Council may at all times provide and secure to other companies such running powers, traffic arrangements, and other rights, as will afford to all railways connecting with those so subsidized, reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the Governor in Council shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways hereby subsidized.

8. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, materials and mails over the portion of the line in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the Department of the Government for which such service is being performed and the company performing it, and, in case of disagreement, then at such rates as are approved by the Governor in Council; and in or towards payment for such charges the Government of Canada shall

be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy received by the company under this Act.

9. As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers, showing the cost of constructing the railway, the cost of operating it, and the earnings thereof

10. The Governor in Council may make it a condition of the grant of the subsidies herein provided, or any heretofore authorized by any Act of Parliament as to which a contract has not yet been entered into with the company for the construction of the railway, that the company shall lay its road with new steel rails, made in Canada, if they are procurable in Canada of suitable quality, upon terms as favourable as other rails can be obtained, of which the Minister of Railways and Canals shall be the judge.

LAND SUBSIDIES.

By 47 Vic., chap. 25, clause 7, 1884 (*Assented to April 19, 1884*):—

1. The Governor in Council is hereby authorized in aid of the construction of a railway from some point on the Canadian Pacific Railway to Hudson's Bay, to make a free grant of not more than six thousand four hundred acres for each mile of railway within Manitoba, and not more than twelve thousand eight hundred acres for each mile in the North-west Territories.

By 48-49 Vic., chap. 60, 1885 (*Assented to July 20, 1885.*)

2. To the North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding three thousand eight hundred acres for each mile of the company's railway, from Medicine Hat to the coal banks on the Belly River, about one hundred and ten miles.

3. To the Manitoba and South-western Colonization Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from its commencement at Winnipeg to its terminus at Whitewater Lake, about one hundred and fifty miles.

4. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Portaga la Prairie to the crossing of the South Branch of the River Saskatchewan, twenty miles from Prince Albert, about four hundred and thirty miles.

5. To the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from its commencement near Regina to the navigable waters of Long Lake.

'The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council ; and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.'

By 49 Vic., cap. 11, 1886 (*Assented to June 2, 1886*):—

6. To the Manitoba and North-western Railway Company, Dominion lands to the extent of six thousand four hundred acres per mile for each mile of the com-

pany's branch railway running from a point on the main line of that railway, at or near Todburn, in a north-westerly direction through the county of Russell to the Assiniboine River, near the town of Shellmouth, about twenty-six miles.

*7. To the North-west Central Railway Company, or to such other company as may undertake the construction of the railway or a railway from a point on the Manitoba and North-western Railway via Rapid City, westward, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway, for the whole distance from Brandon station on the Canadian Pacific Railway, or from such point on the Manitoba and North-western Railway as aforesaid, to Battleford, in the provisional district of Saskatchewan, about four hundred and fifty miles.

†8. To the Wood Mountain and Qu'Appelle Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's railway for the whole distance commencing at a point in township number four, in range number thirty, west of the second meridian, in the Dominion lands system of survey, passing through the town of Fort Qu'Appelle to join the Manitoba and North-western Railway at a point to be fixed for that purpose by the Governor in Council, about two hundred and forty miles

'The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof,—each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council ; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.'

By section 5 of this Act authority was given for the incorporation by the Governor in Council of a company to construct the line from Brandon, or other point indicated, to Battleford, subsidized by this Act.

By 50–51 Vic., cap. 22, 1887 (*Assented to June 23, 1887*) :—

9. The subsidy to the North-western Coal and Navigation Company, granted by 49 Vic., chap. 60, was increased from 3,800 acres per mile to 3,840 acres per mile.

By 50–51 Vic., cap. 23, 1887 (*Assented to June 23, 1887*) :—

†10. To the Alberta and Athabasca Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from some point on the Bow River or Canadian Pacific Railway, at or between Calgary and Crowfoot Creek, to a point near the town plot of Edmonton, about three hundred miles.

11. To the Qu'Appelle, Long Lake and Saskatchewan Railway and Steamboat Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point near the northern terminus of the completed portion of that railway, at or near Long Laketon, on the navigable waters of Long Lake, to a point at or near where the fifty-second parallel of latitude crosses the South Saskatchewan River, thence to a point at or near the elbow of the North Saskatchewan River, with branches to Prince Albert and Battleford, about three hundred and twenty-five miles.

†12. To the Medicine Hat Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway, from a point at or near Medicine Hat, on the line of the Canadian Pacific Railway, to the coal field in or near townships twelve and thirteen,

*Lapsed except for the subsidy earned for the 50 miles constructed.

†The subsidies in land grants for the Wood Mountain and Qu'Appelle, the Alberta and Athabasca and the Medicine Hat railways have lapsed.

range six, west of the fourth principal meridian, a distance of about eight miles to be selected out of such lands as are at the disposal of the Government in the proximity of the line of the company's railway.

'The said grants, and each of them may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof, each of the said enterprises being respectively subject to any modification thereof which may hereafter be made by the Governor in Council; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.'

By 52 Vic., chap. 4, 1889 (*Assented to May 2, 1889*):—

13. To the North-western Coal and Navigation Company (Limited), in addition to the grant provided for by section one of the Act passed in the session held in the forty-eighth, and forty-ninth years of Her Majesty's reign, and chaptered sixty, Dominion lands to an extent not exceeding two thousand six hundred acres for each mile of the company's railway from Dunmore station on the Canadian Pacific Railway, to Lethbridge, on the Belly River, the present terminus of the said railway, a distance of one hundred and nine and one-half miles,—such additional grant to be made only on condition that the gauge of the said railway be made standard width; and also to the said North-western Coal and Navigation Company (Limited), Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Lethbridge to the international boundary, a distance of about fifty miles.

14. To the Red Deer Valley Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Cheadle Station, on the Canadian Pacific Railway, to its terminus at a point in or near township twenty-nine, range twenty-three west of the fourth meridian, a distance of about fifty-five miles.

***15.** To the North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary, on the Canadian Pacific Railway, northerly to a point on the North Saskatchewan River, at or near Edmonton, a distance of about two hundred and ten miles; and also to the said North-western Railway Company of Canada, Dominion lands to an extent not exceeding ten thousand acres for each mile of the company's railway from Calgary southerly to Lethbridge, a distance of about one hundred and twenty miles.

16. To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand acres for each mile of the company's railway from Portage la Prairie to the southern boundary of Lake Manitoba, a distance of about seventeen miles.

'The said grants, and each of them, may be so made in aid of the construction of the said railways respectively, in the proportions and upon the conditions fixed by the Orders in Council made in respect thereof, and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash on the issue of the patents therefor.

The Governor in Council may make the grant of land provided for by section three of the Act forty-ninth Victoria, chapter eleven, being for the line of the Wood Mountain and Qu'Appelle Railway, of about two hundred and forty miles in length, applicable to the line of railway of the said company, as authorized by the Act respecting the Wood Mountain and Qu'Appelle Railway Company, passed during the present session of Parliament, upon the like terms and subject to the like conditions as those upon which the grant hereinbefore mentioned was authorized to be made to the said company by the Act in this section first cited.'

*The North-western Railway of Canada land grant subsidy has lapsed.

By the Act 53 Vic., cap. 4, 1890 (*Assented to May 16, 1890*) :—

17. To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line to be constructed from Glenboro' westerley a distance of about sixty miles to a point on the proposed branch railway of the said company running from Brandon south-westerly.

18. To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a branch line of railway from a point at or near Brandon, on the main line of the Canadian Pacific Railway, south-westerly to or near township three, range twenty-seven, west of the first principal meridian, and thence westerly, a total distance of one hundred miles; and also a similar grant, at the same rate per mile, for the said company's proposed branch railway from a point on the line just described at or near township three, range twenty-seven, west of the first principal meridian, easterly to Deloraine, a distance of about twenty-five miles, making the total length of railway to which this grant is applicable one hundred and twenty-five miles.

*__19.__ To the Brandon and South-western Railway Company, Dominion lands to an extent not less than six thousand four hundred acres per mile for the line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to Deloraine, a distance of about seventeen miles.

*__20.__ To the Lac Seul Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Shelly Station, on the main line of the Canadian Pacific Railway, to a point at or near White Mud Lake, on the Winnipeg River, a distance of about eighteen miles.

21. To the Calgary and Edmonton Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres for each mile of the company's railway from Calgary to a point at or near Edmonton on the North Saskatchewan River, a distance of about one hundred and ninety miles; and also a grant of six thousand four hundred acres for each mile of the company's railway from Calgary to a point on the international boundary between Canada and the United States, a distance of about one hundred and fifty miles.

*__22.__ To the North-western Coal and Navigation Company (Limited) Dominion lands to an extent not exceeding three thousand eight hundred and forty acres for each mile of the company's railway from Lethbridge to the Crow's Nest Pass, a distance of about one hundred miles.

23. To the Lake Manitoba Railway and Canal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Portage la Prairie to Lake Winnipegosis, at or near Meadow Portage, a distance of about one hundred and twenty-five miles.

24. To the Manitoba and South-eastern Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile, for a line of railway from Winnipeg southerly or south-easterly to a point on the west side of the Lake of the Woods, a distance of about one hundred and ten miles.

The said grants and each of them may be made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof, and except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash, on the issue of the patents therefor.

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* The land grant subsidy to the Brandon and South-western, the Lac Seul and North-western Coal and Navigation railways has lapsed.

The lands by this Act authorized to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands or property of the said company created before the passing of this Act.

By the special Act 53 Vic., cap. 3, 1890 (*Assented to March 26, 1890*):—

25. The Act 52 Victoria, chapter 4, authorizing, in error, the grant of land to the North-western Coal and Navigation Company, for fifty miles from Lethbridge to the international boundary, was amended—the said grant being made to the Alberta Railway and Coal Company.

By 54–55 Vic., cap. 9, 1891 (*Assented to September 30, 1891*) :—

26. In lieu of the subsidy in land authorized by the Act 52 Victoria, chapter 4, to be granted to the Red Deer Valley Railway and Coal Company, and subject to the conditions in the said Act mentioned, the Governor in Council may grant Dominion lands to the said company to an extent not exceeding six thousand four hundred acres for each mile of the said company's railway, from the town of Calgary, in the district of Alberta, in the North-west Territories, to a point in or near township twenty-nine, range twenty-three, west of the fourth meridian, a distance of about fifty-five miles.

By 54-55 Vic., cap. 10, 1891 (*Assented to September 30, 1891*):—

27. To the Manitoba South-western Colonization Railway Company, in addition to the subsidy for one hundred and fifty miles of railway authorized by the Act passed in the session held in the forty-eighth and forty-ninth years of Her Majesty's reign, chapter sixty, Dominion lands to the extent of six thousand four hundred acres per mile for the balance of the two hundred and twelve miles of railway which have been constructed and are in operation, that is to say, for a distance of sixty-two miles.

28. Also, to the Manitoba South-western Colonization Railway Company, Dominion lands to the extent of six thousand four hundred acres for each mile of the company's branch line of railway from Carmen to Barnsley, a distance of about six and one-quarter miles.

29. To the Canadian Pacific Railway Company, in addition to the subsidy authorized by the Act 53 Victoria, chapter 4, for the company's branch line running in a south-westerly and westerly direction from a point at or near Brandon for a distance of one hundred miles, Dominion lands to the extent of six thousand four hundred acres for each mile of the extension westward of the said branch line, from the western limit of the said one hundred miles to a point at or near La Roche Percée, situated in township one, range six, west of the second meridian, a distance of about sixty miles.

'The said grants and each of them shall be made in aid of the construction of the said railways respectively, in the proportion and upon the conditions fixed by the Orders in Council made in respect thereof, and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively, of the cost of survey of the lands and incidental expenses, at the rate of ten cents per acre in cash, on the issue of the patents therefor.'

By the Act 57-58 Vic., cap. 6, 1894 (*Assented to July 23, 1894*):—

***30**. To the Rocky Mountain Railway and Coal Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Olds Station on the line of the Galgary and Edmonton Railway in a westerly direction to the Red Deer River and thence along the said river in a westerly direction to the coal fields, a distance of about sixty miles.

*The land grant subsidy to the Rocky Mountain Railway and Coal Company has lapsed.

31. To the Canadian Pacific Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point at or near Souris on the Souris Branch of the Canadian Pacific Railway, in a westerly direction to the Pipestone Valley, a distance of about thirty-two miles.

***32**. To the Brandon and South-western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from a point in township one, in either range twenty-three or twenty-four west of the first principal meridian, to a point at or near Deloraine, a distance of about seventeen miles.

33. To the Saskatchewan and Western Railway Company, Dominion lands to an extent not exceeding six thousand four hundred acres per mile for a line of railway from Minnedosa to Rapid City, a distance of about fifteen miles.

The said grants and each of them may be made in aid of the construction of the said railways respectively in the proportion and upon the conditions fixed by the Orders in Council made with respect thereto; and, except as to such conditions, the said grants shall be free grants, subject only to the payment by the grantees respectively of the cost of the survey of the lands and incidental expenses at the rate of ten cents per acre in cash on the issue of the patents therefor.

The lands authorized by this Act to be granted to the Canadian Pacific Railway Company shall be taken and held, and may be disposed of, free and clear of any encumbrance on the lands and property of the said company created before the passing of this Act.

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*The land grant subsidy to the Brandon and South-western Railway Company has lapsed.

PART IV

MISCELLANEOUS STATEMENTS

No.

Subsidy Agreements for the Construction of Railways

Number of Contract.	Date of Signature.	Name of Railway.	Line of Railway to be Constructed.	Authority for Execution.	
				Act of Parliament.	Order in Council.
14254	July 25, 1901.	Atlantic and Lake Superior Ry Co.	From Caplin to Paspebiac, Que...	1 Edw. VII, c. 7.	June 6 & 29, 1901.
14316	Sept. 28, 1901.	Algoma Central and Hudson Bay Ry. Co.	From Sault Ste. Marie, Ont., Towards Michipicoten River and Harbour towards Main Line of C. P. Railway.	62-3, Vic., c. 7.	May 30 and August 10, 1901.
14413	Feb. 5, 1902.	"	For 25 miles on Michipicoten Branch and 25 miles on Main Line at end of 40th mile.	63-4, Vic., c. 8.	Jan. 6, 1902.
14360	Nov. 19, 1901.	Bruce Mines and Algoma Ry. Co.	From a point on Algoma Branch of C. P. Ry., at or near Bruce Lake Station, northerly to a point at or near Rock Lake.	1 Edw. VII, c. 7.	Nov. 5, 1901.
14390	Dec. 28, 1901.	Canadian Pacific Ry. Co.	From westerly end of Waskada Branch of C. P. Ry., Manitoba, further westward.	63-4, Vic., c. 8.	July, 6, Sept. 11, Oct. 3 and Nov. 30, 1901.
14415	Feb. 8, 1902.	"	From a point on Stonewall Branch, or Selkirk Branch, of C. P. Ry. to Icelandic River By way of Gimli.	1 Edw. VII, c. 7.	Nov. 30, 1901, and Jan. 25, 1902.
14282	Aug. 26, 1901.	Kootenay and Arrowhead Ry. Co.	From Duncan Lake towards Lardo or Arrow Lake, B.C., or from Lardo to Arrow Lake.	1 Edw. VII, c. 7.	June 8 and July 26, 1901.
14262	Aug. 2, 1901.	Montreal and Province Line Ry. Co.	From Farnham, Que., to Frelighsburg.	1 Edw. VII, c. 7.	June 29, 1901.
14494	May 5, 1902.	Middleton and Victoria Beach Ry. Co.	From Bridgetown to Victoria Beach, N.S.	63-4, Vic., c. 8.	April 1, 1902.
14495	May 5, 1902.	"	From Bridgetown to Middleton, N.S.	1 Edw. VII, c. 7.	April 1, 1902.
14427	Feb. 15, 1902.	Ottawa Northern and Western Ry. Co.	From their line in and through Hull, Que.	62-3, Vic., c. 7.	Oct. 3, 1901, & Jan. 6 & 25, 1902.
14263	July 30, 1901.	Red Deer Valley Ry. and Coal Co.	From Calgary to a point in Township 29, Range 23, 4th Meridian.	52 Vic., c. 4; 54-5 Vic., c. 9 and 76.	June 29, 1901.
14411	Feb. 3, 1902.	Schomberg and Aurora Ry. Co.	From a point on G.T. Ry., between King and Newmarket, Ont., to Schomberg.	1 Edw. VII, c. 7.	Dec. 23, 1901.
14324	Oct. 15, 1901.	Tilsonburg, Lake Erie and Pacific Ry. Co.	From Tilsonburg to Ingersoll or Woodstock.	62-3, Vic., c. 7.	Sept. 11, 1901.

Department of Railways and Canals,
Ottawa, August 29, 1902.

1.

entered into during the Fiscal Year ended June 30, 1902.

Amount of Subsidy.		Number of Miles Subsidized.	Maximum Grade Feet per Mile.	Radius of Curvature not less than.	Width of Clearing each side.	Width of Cutting.	Embankment.	Steel Rails, lbs., per Lineal Yard.	Date for Completion.
Per Mile.	Not exceeding.								
$	$	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Lbs.	
3,200	6,400 p. mile.	30	67	717	50	20	15	56	July 1, 1902.
3,200	6,400 "	40	106	717 573	50	20	15	56	May 1, 1902.
3,200	6,400 "	50	106 132 185 80	478 717	50	20	15	56	Oct. 1, 1903.
3,200	6,400 "	9	67·05	573·7	50	20	15	56	Dec. 15, 1901.
3,200	6,400 "	20	52·80	1433	50	20	14	56	Oct. 1, 1902.
3,200	6,400 "	35	26·4	1146	50	20	14	56	Dec. 31, 1902.
3,200	6,400 "	30	106	410	50	20	14	56	Aug. 1, 1903.
3,200	6,400 "	19	80	955	33	20	15	56	Sept. 1901.
3,200	6,400 "	30	63·36	955	50	20	15	56	Dec. 1, 1903.
3,200	6,400 "	11	63·36	955 818	50	20	15	56	Dec. 1, 1903.
3,200	6,400 "	4	68·64	573	50	20	15	56	Feb. 15, 1902.
....	6,400 "	55	66 88	1348	50	20	14	56	July 1, 1903.
3,200	6,400 "	15	105·6	717	50	20	15	56	Oct. 31, 1903.
3,200	6,400 "	28	52·80	1146 732	50	20		56	Oct. 1, 1902.

GERARD RUEL,
Law Clerk.

No. 2.

CONTRACTS entered into during the Fiscal Year ended June 30, 1902.

1.—INTERCOLONIAL RAILWAY.

No. of Contract.	Date of Signature.	Contractors.	General Description.
14242	July 8, 1901.	Barrow Hematite Steel Co.,	Supply 3,000 tons of 1st quality steel rails.
14243	" 11, 1901.	Joseph Gosselin	Erect passenger station at Lévis, Que.
14265	" 30, 1901.	Canadian Locomotive Co	Deliver six switching engines.
14271	" 30, 1901.	The Barney Smith Car Co.	Deliver one private car.
14280	" 2, 1901.	The Hamilton Bridge Works Co., Ltd	Deliver two turntables.
14289	" 27, 1901.	Honoré Huard	Erect freight shed at St. François, Que.
14290	" 27, 1901.	"	Remodel station and erect freight shed at St. Pierre, Que.
14295	" 2, 1901.	M. Connolly	Dredging and rock excavation at Point Tupper and Mulgrave, N.S.
14303	Aug. 20, 1901.	Willard Kitchen	Construct coal shed and trestle at Stellarton, N.S.
14309	" 31, 1901.	Robert Barbour & Son	Paint freight shed at St. John, N.B.
14310	" 24, 1901.	Currie Bros. Woodworking Co	Erect addition to freight shed at Campbellton, N.B.
14313	" 24, 1901.	Rhodes, Currie & Co., Ltd.	Construct 12 additional stalls at Sydney, C.B.
14334	Oct. 1, 1901.	Hamilton Bridge Works Co., Ltd	Erect bridges at Nash's Creek, Millstream, Westchester, Bathurst, Eel River, Campbellton, Metapedia and St. Eloi.
14338	" 1, 1901.	Dominion Bridge Co., Ltd.	Construct 6 through Pratt trusses for Miramichi bridge and remove old span.
14340	Sept. 11, 1901.	T. M. Leblanc	Excavating and pipe laying at Point Tupper, C.B.
14343	Oct. 9, 1901.	John W. McLeod *et al*	Remodel and enlarge present station at Denmark, N.S.
14351	" 1, 1901.	Canadian Bridge Co., Ltd.	Erect bridges at Bathurst, Nash's Creek, Sayabec, Petite Roche, New Mills, Assametquaghan and St. Fabien.
14358	" 21, 1901.	E. T. Nesbit	Erect station and freight shed at Trois Pistoles, Que.
14363	Nov. 11, 1901.	Honoré Huard	Erect freight shed at Chaudière Junction.
14364	" 15, 1901.	Thimothée Landry	Erect station and dwelling at St. Octave, Que.
14365	" 12, 1901.	M. G. Mann	Erect section house at Millstream, Que.
14366	" 12, 1901.	I. Matheson & Co., Ltd.	Supply 6 steel roof trusses for Moncton power house.
14369	Dec. 11, 1901.	Willard Kitchen	Extend wharf and freight shed at Pictou, N.S.
14370	" 11, 1901.	Shedden Forwarding Co., Ltd.	Cartage of freight in Montreal.
14372	Nov. 30, 1901.	Crossen Car Manufacturing Co., Ltd	Deliver 250 box freight cars.
14373	" 11, 1901.	Cléophas Auger	Erect section house at Rivière du Chêne, Que.
14374	" 11, 1901.	"	" " Kingsbury, Que.
14420	Feb. 4, 1902.	Illsley & Horn	Remodel passenger station at Halifax, N.S.
14447	March 8, 1902.	J. B. McManus	Lay water pipes at Chaudière Junction, Que.
*14468	May 15, 1901.	The Lake Superior Power Co.	Deliver 25,000 tons steel rails.
14475	Aug. 30, 1901.	James Watson & Co.	" 7,000 " "
14483	April 14, 1902.	Alexis Bélanger	Move freight shed at St. André and construct addition thereto.
14546	June 16, 1902.	Canadian Locomotive Co	Deliver 25 simple consol. locomotives.

* Too late for last years Report.

No. 2.—Contracts entered into during the Fiscal Year ended June 30, 1902—*Con.*

2.—PRINCE EDWARD ISLAND RAILWAY.

No. of Contract.	Date of Signature.	Contractors.	General Description.
14361	Aug. 15, 1901..	Thomas Campbell.....	Change in location to shorten main line between Charlottetown and Summerside, near Blueshank.
14542	May 12. 1902..	Willard Kitchen.....	Extending Contract No. 14118 to cover same class of work upon balance of Murray Harbour Branch, &c.

3.—CHAMBLY CANAL.

14348	Nov. 18, 1901..	Louis Forgue..	Construct pipe sewer in St. Johns, Que.
14401	Jan. 23, 1902..	Montreal and St. Lawrence Light and Power Co.....	Construct and maintain dam across Richelieu River in vicinity of Ste. Thérèse Rapids.
14422	Feb. 10, 1902..	William J. Finn..... . .	Construct syphon culvert in Parish of St. Johns, Que.

4.—CORNWALL CANAL.

14335	Nov. 6, 1901 .	Michael P. Davis.....	Construct switch houses.
14414	Feb. 8, 1902...	Joseph J. Fallon	Widen and strengthen north bank of canal E. of Pitt Street, Cornwall, Ont.
14508	May 20, 1902..	Michael P. Davis.....	Mechanism for operating locks, guard gates, weirs and bridges of canal.

5.—GALOPS CANAL.

14410	Feb. 3, 1902...	M. A. Cleveland..	Erect toll house at upper entrance.

6.—LACHINE CANAL.

14288	Aug. 15, 1901..	The Sicily Asphaltum Paving Co., Ltd.....	Paving of Mill Street, on canal, Montreal.
14336	Oct. 26, 1901..	Canadian General Electric Co., Ltd	Supply and install electric plant for new power house at Côte St. Paul.

7.—RIDEAU CANAL.

14267	July 30, 1901..	Ottawa Fireproof Supply Co..	Supply 1,500 bbls. Portland cement.
14318	Oct. 8, 1901...	Dominion Bridge Co., Ltd. .	Erect steel bridge across canal near Village of Manotick, Ont.
14322	Oct. 15, 1901..	T. M. Woodburn..	Supply timber for 1901-1902.
14357	Nov. 30, 1901..	Selby & Youlden.....	Construct boiler for dredge "Rideau."

8.—SOULANGES CANAL.

14248	July 8, 1901. .	Quinlan & Robertson..... .	Construct protection dock at Cascades Point, Que.
14317	Sept. 27, 1901.	Canadian Portland Cement Co.....	Supply 3,600 bbls. Portland cement.
14325	Sept. 30, 1901.	Quinlan & Robertson.....	Work at Bissonnette Gully (Sec. No. 3).
14339	Nov. 5, 1901..	" "	Repairs to public road (Sec. No. 3).
14416	Sept. 28, 1901.	George Monpetit.....	Erect a cabin on each of the five bridges over canal.

No. 2.—Contracts entered into during the Fiscal Year ended June 30, 1902—*Con.*

9.—TRENT CANAL.

No. of Contract.	Date of Signature.	Contractors.	General Description.
14264	July 8, 1901..	Grand Trunk Ry. Co. and Brown & Aylmer.....	Varying contract, No. 13936, in respect to "proposed swing bridge," over canal, between Beaverton and Gamebridge.
14345	Nov. 8, 1901..	Hugh Burnet.	Construct dam on Otonabee River.
14429	Feb. 19, 1902..	Hamilton Bridge Works Co., Ltd	Erect five bridges over canal.
14540	June 4, 1902..	Owen Sound Portland Cement Co.....	Deliver 14,000 bbls. Portland cement.
14544	June 4, 1902..	Lakefield Portland Cement Co.....	Deliver 14,000 bbls. Portland cement.

10.—WELLAND CANAL.

14315	Sept. 12, 1901.	Magann & Phin.....	Dredging portion of summit level between Thorold and Pt. Colborne.
14333	Oct. 26, 1901..	Hogan & MacDonell	Deepen rock cut on summit level between Pt. Colborne and Humberstone.
14341	Nov. 5, 1901..	Hutchinson *et al*..	Rebuild dam and bridge at Dunnville, Ont.
14385	Dec. 19, 1901..	Hogan & MacDonell	Respecting extra work under Contract No. 13807, of May 4, 1900.
14409	Jan. 31, 1902..	Hamilton Bridge Works Co., Ltd	Erect swing bridge on Marlatt's Site, old canal.
14426	Feb. 15, 1902..	Cunningham & Cuthbert ...	Supply iron, brass and phosphor bronze castings for 1902.
14440	Mch. 6, 1902..	McCleary & McLean	Supply timber, lumber, &c., for 1902.
14478	April 18, 1902.	Hamilton Bridge Works Co., Ltd	Build four steel valves for regulating weir at Pt. Colborne.
14615	April 30, 1902.	Joseph Battle.....	Construct substructure of swing bridge at Marlatt's Crossing, old canal.

Department of Railways and Canals,
Ottawa, August 29, 1902.

GERARD RUEL,
Law Clerk.

WATER POWER AND OTHER PUBLIC PROPERTY LEASED BY THE DEPARTMENT OF RAILWAYS AND CANALS

No.

WATER POWER and other Public Property leased by the Department

1.—INTERCOLONIAL

No. of Lease.	Date of Signature.	Lessee.	Property leased.
	1901.		
14258	July 9..	A. D. Richard	Land at Dorchester wharf, N.B.
14331	Oct. 23..	David Inglis Co., Ltd	Land at Flatlands Station, N.B.
14367	Dec. 2..	Sussex Mercantile Co	Land at Sussex, King's Co., N.B
14368	" 11..	Rhodes, Curry & Co., Ltd	Land at Amherst, N.S
	1902.		
14399	Jan. 14..	Provident Investment Co., Ltd., to His Majesty.	Premises No. 10 King St., Toronto
14407	Feb. 3..	Cumberland Coal & Ry. Co	Land at Springhill Jct., County of Cumberland, N.S.
14418	" 11..	Wm. Currie	Land at Campbellton, N.B.
14419	" 11..	Wm. A Simpson	Land at Memramcook, N.B
14434	" 22..	Jno. Stevenson	Land at Wallace, N.S.
14435	" 22..	Acadia Coal Co	Land at New Glasgow, N.S
14466	Mar. 25..	Geo. McKean	Land at Dalhousie, N.B.
14471	April 5..	Canada Ry. News Co	Privileges to sell newspapers, &c., on all passenger trains.
14538	" 22..	W. S. Montgomery	Land at Dalhousie, N.B.
14554	June 23..	H. F. McDougall	Land at Sydney, N.S

2.—BEAUHARNOIS

	1901.		
14332	Oct. 30..	Montreal Cotton Co	Lot No. 755 and pt. lots Nos. 829 and 853, Valleyfield, Que.
	1902.		
14479	April 18..	Denis Frères	Land at S.E. corner of Victoria and Jacques Cartier Sts., Valleyfield, Que.

3.—CHAMBLY

	1902.		
14476	April 8..	Montreal & St. Lawrence Light & Power Co.	Privilege to erect two towers to carry their electric cables over canal.

4.—GALOPS

	1901.		
14286	Aug. 29..	Mahlon F. Beach	Land at weir adjacent to Lock No. 25, Village of Iroquois; water, &c.

5.—GRENVILLE

	1901.		
14375	Dec. 16..	G. O. S. Conway	Land between canal and river at Grenville, water power, &c.

3.

of Railways and Canals during the Fiscal Year ended June 30, 1902.

RAILWAY.

Area.	Amount of Water Power.	Term.	Commencement of Term.	Terms of Payment.		
				Annual Rental.	Due each year.	First Instalment due.
				$ cts.		
9,600 sq. ft.		1 year.	July 1, 1901.	1 00	June 30.	June 30, '01
4,600 "		During pleasure.	" 1, 1896.	5 00	July 1.	July 1, '96
6,000 "		"	Oct. 19, 1901.	5 00	June 30.	Oct. 19, '01
1,560 "		"	July 1, 1901.	1 00	" 30.	June 30, '01
		3 years.	Nov. 1, 1900.	1,600 00	Quarterly.	Feb. 1, '01
¼ acre		During pleasure.	June 30, 1901.	1 00	June 30	June 30, '01
1·18 acre.		"	Dec. 1, 1901.	4 25	" 30.	Dec. 1, '01
3·04 acres; 270 sq. ft.		"	"	7 00	" 30	" 1, '01
264 sq. ft.		"	"	1 00	" 30.	" 1, '01
1,394 "		"	Jan. 1, 1902.	5 00	" 30.	Jan. 1, '02
729 "		"	June 30, 1901.	1 00	" 30.	June 30, '01
		3 years.	May 1, 1900.	4,900 00	Monthly.	
10 sq. ft.		During pleasure.	April 22, 1902.	1 00	June 30.	April 22, '02
180 "		"	July 1, 1902	1 00	" 30.	June 30, '02

CANAL.

5·49 acres; 34,300 sq. ft.	2,500 h. p.	21 years, renewable.	March 1, 1901.	1 433 00	March 1.	March 1, '01
6,400 sq. ft.		"	May 1, 1902.	184 00	May 1.	May 1, '02

CANAL.

		During pleasure.	May 1, 1902.	25 00	May 1.	May 1, '02

CANAL.

0·15 acre	200 h. p.	21 years, renewable.	July 1, 1901.	Land, $1.00; water, $2.00 per h. p.	Semi-annually.	July 1, '02

CANAL.

18 acres.		21 years, renewable.	Jan. 1, 1902.	Land, $452; privileges, $1.00.	Semi-annually.	Jan. 1, '02

No. 3.—Water Power and other Public Property leased by the Department of

6.—LACHINE

No. of Lease.	Date of Signature.	Lessee.	Property leased.
	1901.		
14241	July 8..	Laing Packing and Provision Co., Ltd.	Privilege to lay a 14-in. pipe from Wellington Basin to Montreal Stock Yards Co., and draw water from Canal.
14294	Sept. 2	Bell Telephone Co. of Canada, Ltd.	Privilege to erect 7 poles.....
14311	" 24	Canada Horse Nail Co.....	Pt. Lot 326, Ste. Ann's Ward, Montreal, water power, &c.
14319	Oct. 9	Albert Fox.....	Privilege to lay a 6 in. pipe and draw water .....
14323	" 15	Montreal Water Power Co....	Privilege to lay 3 double lines of water pipes.....
14326	" 15	Jno. C. & Chas. J. Hodgson..	Privilege to lay a 10 in. pipe and draw water.....
14362	Nov. 30	Montreal Transportation Co ..	Island No. 5, in Canal .....
	1902.		
14480	Apl. 24	Northern Paving and Construction Co.	Land in Municipality of St. Gabriel, Montreal, surplus water, &c.
14487	May 1	Montreal Transportation Co.	Land covered with water, pt. of water-way between Island No. 5 and N. Bank of Canal.
14500	" 13	Montreal Street Ry. Co. .. .	Privilege to lay a 6 in. pipe and draw water.. . .....
14510	" 21	Lachine Rapids Hydraulic and Land Co., Ltd.	Privilege to erect 6 poles at Cote St. Paul.....
14553	June 11	Ogdensburg Coal and Towing Co.	Land on E. side of St. Gabriel Basin No. 1.....

7.—RAPIDE PLAT

	1901.		
14371	Dec. 10	A. G. F. Drew to His Majesty.	First floor on S. side of building on lot 13, and pt. lot 12, Block 96, Morrisburg, Ont.

8.—RIDEAU

	1901.		
14269	July 9	Pontiac Pacific Jct. Ry. Co. and Ottawa Northern and Western Ry. Co.	Land on E. side of Canal between Sapper's and Dufferin bridges, Ottawa.

9.—SAULT STE. MARIE

	1902.		
14515	May 30	Sun Oil Refining Co. of Hamilton, Ltd.	Parcel of Ship Canal water lot in Sault Ste. Marie, Ont.

10.—SOULANGES

	1901.		
14245	July 8	Michael P. Davis.....	All surplus water power from summit level.....
14275	Aug. 13	J. Charron to His Majesty.. .	Privilege to store Plant in his building in the Village of Rockland, Ont.
	1902.		
14467	Mch. 26	Jos. Pouliott to His Majesty..	" " "

Railways and Canals during the Fiscal Year ended June 30, 1902—*Continued.*

CANAL.

Area.	Amount of Water Power.	Term.	Commencement of term.	Terms of Payment. Annual Rental.	Due each year.	First instalment due.
				$ cts.		
		During pleasure	July 1, 1901	140 00	July 1	July 1, '01
		Dur. pleasure	Sept. 1, 1901	1 00	Sept. 1	Sept. 1, 1901
23,443 sq. ft.	75 h. p.	"	July 1, "	2,000 00	Semi-annually.	July 1, "
		"	Nov. 1, "	60 00	Nov. 1	Nov. 1, "
		"	May 1, "	15 00	May 1	May 1, "
		"	Jan. 1, 1899	100 00	Jan. 1	Jan. 1, 1899
		21 yrs ren'ble	July 1, 1901	200 00	July 1	July 1, 1901
19,200 sq. ft.		Dur. pleasure	Dec. 1, "	200 00	Dec. 1	Dec. 1, "
		"	Jan. 1, 1902	1 00	Jan. 1	Jan. 1, 1902
		"	May 1, "	60 00	May 1	May 1, "
		"	" "	1 00	"	" "
11,125 sq. ft.		"	July 1, "	167 00	July 1	July 1, "

CANAL.

		3 years	Dec. 1, 1901	180 00	Monthly	Jan. 1, 1902

CANAL.

		Dur. pleasure	July 1, 1901	5 00	July 1	July 1, 1901

CANAL.

6,000 sq. ft.		Dur. pleasure	May 1, 1902	10 00	May 1	May 1, 1902

CANAL.

		21 yrs., ren'ble	May 1, 1901	3,000 00	Semi-annl'y.	May 1, 1901
		Dur. pleasure	Aug. 1, "	1 50	Per month.	
		"	Mch. 15, 1902	1 50	"	

No. 3.—Water Power and other Public Property leased by the Department of

11.—TRENT

No. of Lease.	Date of Signature.	Lessee.	Property leased.
	1901.		
14354	Aug. 1	Meldrum, Stratton & Hall....	Pts. of lot No. 22, Con. 4th, T'p. of Smith, Co. of Peterborough, right of way, &c
14406	Nov. 30	D. Robertson.....	Lot 49 and pt. lot 48 in T'p. of Eldon, Co. of Victoria, Ont., privilege, &c.....

12.—WELLAND

	1901.			
14285	July	31	Niagara, St. Catharines and Toronto Ry. Co.	Privilege to lay an electric cable above Lock No. 24...
14293	"	30	" "	Pt. lot 13, 2nd Con., T'p. of Grantham.....
14320	Oct.	9	Thorold Pulp Co. Ltd.....	Surplus water at Lock 22 .....
14330	"	26	Robert Cooper	Land and water power at Welland, Ont .....
	1902.			
14541	June	4	James Walker.....	Pt. lot 29 in T'p of Thorold, Co. of Welland, Ont...

Department of Railways and Canals,
Ottawa, August 29, 1902.

Railways and Canals during the Fiscal Year ended June 30, 1902—*Continued.*

CANAL.

Area.	Amount of Water Power.	Term.	Commencement of term.	Terms of Payment.		
				Annual Rental.	Due each year.	First instalment due.
				$ cts.		
0·70 acre. ...	.....	21 yrs., ren'ble.....	Aug. 1, 1901	1,264 00	Semi-annually.	Land, Au·. 1,'01; Wat'r Aug. 1, '02.
1·50 acre.	.....	Dur. pleasure	Dec. 1, "	10 00	Dec. 1....	Dec. 1, 1901

CANAL.

....	....	Dur. pleasure	Jan. 1, 1901	5 00	Jan. 1....	Jan. 1, 1901
1·12 acre.....	....	21 yrs., ren'ble.....	July 1, "	5 00	July 1....	July 1, "
....	100 h. p	21 yrs...	Dec. 1, 1900	400 00	Semi-annl'y.	June 1, "
0·13 acre.....	40 h. p.....	21 yrs.	Nov. 1, 1901	245 00	Nov. 1....	Nov. 1, "
11·9 acres.....	.....	5 yrs.	Jan. 1, "	25 00	Jan. 1....	Jan. 1, "

GERARD RUEL,
Law Clerk.

No.

PROPERTY conveyed and Damages released to the Department of

1.—CANADIAN

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14355	Oct. 31, '01	Ontario Govt.	Lands between Callendar Station, Nipissing Dist., and Tp. of MacGregor, Thunder Bay Dist.	
14512	Feb. 25, '02	H. Bruce.	Pt. Lot No. 122.	Parish of St. Boniface.
14558	April 4, '02	Daniel Carriere *et al.*	" 121.	" "

2.—INTERCOLONIAL

14278	July 30, '01	His Majesty to Dominion Iron and Steel Co., Ltd.	Lands covered with water, being bed of Muggah's Creek.	Sydney.
14436	Oct. 17, '01 & Jan. 30, '02	Quebec Govt.	Lands in Metapedia Valley for right of way.	
14437	Feb. 14, 02	Govt. of Canada to Quebec Govt.	Lands in Metapedia Valley for railway purposes.	
*14449	Sept. 7, '00	Sarah E. Hazen.	Land E. of Mill St.	St. John City
*14453	" 7, '00	R. M. Hazen (heirs).	Lots 10 & 11, W. side of Mill St.	"
*14454	" 7, '00	Irene M. Simmonds *et al.*	Lands in Common Slip.	"
*14455	" 7, '00	Wm. E. Vroom *et al*	Lands W. of Common Slip.	"
*14459	Oct. 25, '00	Fred. E. Sayre *et ux.*	Land W. of Simond's Common Slip	"
14641	June 25, '02	Jos. A. Likely *et ux.*	Land covered with water in vicinity of Long Wharf.	"
14642	April 11, '02	Thos. E. Burchell *et al.*	Land at.	Sydney.
14643	June 5, '02	Mary A. Mainland.	"	
14644	May 31, '02	Daniel R. MacKay *et ux.*	"	Stellarton.
14645	" 15, '02	Telesphore Vigneault.	Pt. Lot 211, 10th Con., Tp. of Aston.	St. Wenceslas.
14251	July 17, '01	Guy Baxter.		
14321	Oct. 4, '01	Guthrie McElvie.		
14405	Jan. 16, '02	Daniel D. McCormick.	No. 41	Port Hawkesbury
*14452	Sept. 1, '00	H. A. McCarthy	Lot on each side of Mill St.	St. John City
*14456	" 11, '00	R. Wisely *et al.*	Lands in	"
*14457	" 6, '00	R. Carson	"	"
*14458	" 4, '00	Jas. Hamilton	"	"
*14460	Oct. 25, '00	Fred. E. Sayre	Lands for terminal facilities	"
14463	Mar. 11, '02	Geo. McArthur.		
14481	April 25, '02	J. B. Cameron		
14498	" 9, '02	R. S. Low *et al*		
14502	Mar. 11, '02	Eliz. G. Black		

3.—CORNWALL

14428	Jan. 20, '02	Chas. Wagner, *et al.*	Pt. E½ S, Con. 1	Township of Osnabruck.
14392	" 3, '02	Norman Sheets.	Pt. E½ No. 2, Sheiks Island Con. 1.	Township of Cornwall.

* Too late for last year's report.

4.

Railways and Canals during the Fiscal Year ended June 30, 1902.

PACIFIC RAILWAY.

County.	Area.	Amount.	Remarks.
		$ cts.	
.....	.....	.....	Order in Council.
.....	.....	25 00	
.....	.....	25 00	

RAILWAY.

Cape Breton..	.....	.....	Letters Patent.
.....	.....	.....	Orders in Council.
.....	.....	.....	"
St. John, N.B	12,835 sq. ft	5,158 75	
"	4,692¼ "	9,765 50	
"	55,460 & 5,040 sq.ft.	5,288 82	
"	26,954 & 15,025 sq.ft	16,672 75	
"	2,256 sq. ft	562 00	
"	28,106 "	11,410 00	
Cape Breton..	10·2 acres.	10,802 26	
Pictou, N.S.	8,750 sq. ft	100 00	
"	3,827 "	1,490 80	
.....	9,800 "	150 00	
.....	.....	1,884 41	Release, damages for injuries sustained.
.....	.....	1,700 00	" " "
Inverness	.....	10 00	" damages by flooding.
St. John, N.B	.....	287 69	" leasehold interest.
"	.....	11,540 85	" interest as lessee.
"	.....	395 37	" interest as sub-lessee.
"	.....	658 75	" "
"	.....	11,354 68	" damages caused by expropriation
.....	.....	1,000 00	" extra work under contract 13951
.....	.....	372 50	" damages for injuries sustained.
.....	.....	1 00	" all claims under contract 13917.
.....	.....	50 00	" damages loss of a valise.

CANAL.

Stormont	15·23 sq. ft	1,100 00	
"	.....	250 00	Release, damages by flooding.

No. 4.—PROPERTY conveyed and Damages released to the Department of

4.—CULBUTE

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14281	Jan. 16, and July 31, '01	Hon. Geo. Bryson, *et al.*	Pts. N. W½ of Nos. 13 and 14, Range 1st	Township of Litchfield
14378	Dec. 16, '01	Wm. Thompson	Nos. 7 and 8, S. Range	Tp. of Grand Calumet
14379	" 17, '01	Wm. McVeigh	No. 6, N. side of George St. and No. 7, S. side of Front St	Village of Bryson
14386	" 19, '01	Jas. W. Bryson	No. 6	" "
14387	" 20, '01	Mrs. Thos. O'Hare, *et al.*	Pt. 6, Range 5	Tp. of Grand Calumet
14388	" 19, '01	Mrs. A. Boulter		Village of Bryson
14389	" 18, '01	Walter Worrill	E. pt. No. 1, 1st Range	Tp. of Grand Calumet
14398	Jan. 7, '02	Eustache Biroleau	No. 3, corner of Cobb and Central Streets	Village of Bryson
14530	May 20, '02	O. Labine	No. 8, Con. 'C'	Tp. of Westmeath
14531	" " '02	Jno. Lamarche	No. 12 "	" "
14532	" " '02	L. Lacroix	Nos. 9, 10 and 11, Con. 'C'	" "
14533	" " '02	G. Gervais	No. 1, Con. 'C'	" "
14534	" " '02	B. F. Wright	No. 7, "	" "
14535	" " '02	L. Lacroix, Jr	No. 16, "	" "
14536	" " '02	D. Gervais	No. 5 Con. 'B'	" "
14537	" " '02	A. Carswell	No. 1, "	" "
*14662	Jan. 9, '86	A. Fraser	Nos. 3, 4 and 5, N. Front, Con. 'D'	" "
14664	June 21, '02	Wm. Lett	No. 6, Range 1	Tp. of Grand Calumet

5.—FARRAN'S

14424	June 15, '01	Olive Steen	Pt. W½ No. 7 and pts. E½ No. 28 Con. 1	Tp. of Osnabruck

6.—GALOPS

14346	Nov. 6, '01	A. Bolton, *et al*	Pt. E½ 13, Con. 1	Tp. of Edwardsburg
14352	Oct. 8, '01	F. E. Wright, *et ux*	No. 21 E. side of Waddell St. and pt. No. 1 S. of Morrison St	Village of Cardinal
14472	Mch. 6, '02	Wm. H. Wert, *et ux*	Pts. W½ of No. 33, Con. 1	Tp. of Matilda
14473	" 6, '02	Jas. D. Bullis, *et ux*	Pt. Park Lot 'A', Carman Block.	Village of Iroquois
14506	" 5, '02	Jas. Paul, *et ux*	Pt. W½ No. 34, Con. 1	Tp. of Matilda
14514	May 15, '02	Thos. Corley, *et ux*	" " 36, "	" "
14539	April 1, '02	A. W. Morrison, *et ux*	Pt. No. 38, Con. 1	" "
14614	June 28, '02	C. P. Corley	" 36, "	" "

* Too late for year's Report.

Railways and Canals during the Fiscal Year ended June 30, 1902.

CANAL.

Country.	Area.	Amount.	Remarks.
		$ cts.	
Pontiac		1,000 00	Release, damages by flooding.
"		50 00	" " "
"		40 00	" " "
"		45 00	" " "
"		20 00	" " "
"		50 00	Release, damages to a Boat House by flooding.
"		35 00	Release, damages by flooding.
"		25 00	" " "
Renfrew		75 00	" " "
"		30 00	" " "
"		40 00	" " "
"		10 00	" " "
"		20 00	" " "
"		20 00	" " "
"		30 00	" " "
"		40 00	" " "
"		100 00	" " "
Pontiac		20 00	" " "

POINT CANAL.

Stormont	1·53 acres	540 00 With interest at 6 per cent from June 4, 1897.	

CANAL.

Grenville	2·00 acres	500 00	
"		133 00	
Dundas	1·05 "	125 00	
"	0·84 "	2,500 00	
"	0·10 "	60 00	
"	0·82 "	400 00 And interest from June 30, 1897.	
"	0·38 "	150 00	
"	1·37 "	500 00 And interest from June 30, 1897.	

No. 4.—PROPERTY conveyed and Damages released to the Department of

7.—LACHINE

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14484	April 29, '02	F. Piche		Above Cote St. Paul Bridge.
14485	" 29, '02	J. Bte. Cleroux		" "
14486	" 29, '02	Jno. Davidson		" "

8.—RAPIDE PLAT

14393	Nov. 30, '01	Mrs. L. Barkley	Pt. No. 7, Block 100, Morrisburg	Township of Williamsburg.
14394	Dec. 7, '01	Geo. Ro' ertson	Pt. E. ¾ No. 7, Con. 1	Township of Matilda
14425	Feb. 13, '02	W. J. Casselman		
14503	May 1, '02	K. H. Kennedy *et al*	No. 1, Block 98, Morrisburg	Township of Williamsburg.

9.—RIDEAU

14545	June 16, '02	A. Forster		

10.—SAULT STE. MARIE

14396	Dec. 20, '01	Ontario Government	Water lot at Upper Entrance	Town of Sault Ste. Marie.
14397	" 27, '01	"	Land covered with water	" "

11.—ST. PETER'S

14547	June 7, '02	S. O'Donoghue		

12.—SOULANGES

14256	July 3, '01	F. X. Beriault, *et al*	Pts. No. 422	Parish of St. Joseph de Soulanges.
14274	July 27, '01	H. Gauthier	Pt. No. 21	St. Ignace du Coteau du Lac.
*14312	April 30, '01	Harwood Estate	Pt. No. 1	St. Michel de Vaudreuil.
*14555	" 30, '01	J. Leroux, *et al*	Nos. 52, 54, 55 and 59	" "
14639	June 3, '02	V. Beaudry Estate	Pt. No. 112	St. Ignace du Coteau du Lac.

* Too late for last year's report.

Railways and Canals during the Fiscal Year ended June 30, 1902—*Continued.*

CANAL.

County	Area.	Amount.	Remarks.
		$ cts.	
.....	....	23 50	Release, damages to property by flooding.
....	....	41 75	" " "
....	. .....	36 75	" " "

CANAL.

Dundas.....	0·066 acres.. .. .	450 00 And interest at 6 p.c. from May 15, 1893.	
"	0·2 "	780 00	
... .	. .. .	25 00	Release, damages to property.
Dundas.....	....	150 00	Release, damages by grading surrounding streets.

CANAL.

....	....	150 00	Release, claim in connection with lock house at Davis' Station.

CANAL.

Algoma	57 acres.....	....	Order in Council.
"	28·22 "	....	"

CANAL.

. .. .	.....	9,222 27	Release, work done under Contract No. 11895.

CANAL.

Soulanges.....	3·04 acres.....	457 35	
"	0·05 "	40 00	
Vaudreuil	23·60 "	7,514 68	
"	20,000 sq. ft.	1,425 00	
oulanges.....	0·1 acres.....	17 00	

No. 4.—Property conveyed and Damages released to the Department of

13.—TRENT

No. of Deed.	Date of Signature.	Grantor.	Lot.	District.
14277	July 25, '01	His Majesty to Grand Trunk Ry. Co.	Pts. No. 5, Con. 11 and Pt. No. 6, Con. 10.	Township of Douro.
14314	Oct. 26, '01	A. Webster, *et ux.*	Pts. Nos. 59, 60 and 51, N. of Portage Road.	Township of Eldon.
14350	" 28, '01	Wm. McEachren	Pt. No. 32, Con. 10	"
14353	Nov. 18, '01	John McDonald, *et ux.*	Pt. No. 51, Con. 9	"
14380	" 23, '01	Grand Trunk Ry. Co. of Canada.	Pt. No. 6, Con. 10, and pt. No. 6, Con. 11.	Township of Douro.
*14382	April 13, '01	B. Lealy, *et al*	Pts. Nos. 9 and 10, Con. 9	"
14395	Nov. 18, '01	His Majesty to John McDonald	Right of way across pts. Nos. 52 & 51, S. of Portage Road	Township of Eldon.
14402	Jan. 4, '02	H. McInnes, *et al*	Pt. No. 29, N. of Portage Road	" "
14421	" 23, '02	Jas Barker, *et ux.*	Pt. No. 32, Con. 11	" "
14430	Oct. 18, '01	A. Hamilton, *et ux.*	Pts. Nos. 27 and 28, Con. 6, and water Power	" Smith
	July 9, '01			
14496	Mch. '02	Jos. Hodgson, *et ux.*	Pt. No. 13, Con. "C"	Township of Mara
14497	" '02	T. G. Hodgkinson, *et ux.*	Pt. No. 13, Con. 9	" Thorah.
14504	May 13, '02	A. Campbell, *et ux*	Pt. No. 8, Con. 10	" "
14505	" 13, '02	Wm. Kean, *et ux*	Pt. No. 7, Con. 10	"
14516	" 13, '02	A. McDougall	Pt. No. 8, Con. 10	" "
14552	June 4, '02	His Majesty to Loyal Orange Lodge No. 457.	Land in	" Douro
14557	Mch. 31, '02	M. Hodgson, *et al*	Pt. No. 12, Con. 9	" Thorah.
14640	May 3, '02	S. Brown, *et al*	Pt. No. 9, Con. 10	" "
14244	July 8, '01	Township of Fenelon		
14250	" 13, '01	" Emily		
14391	Dec. 28, '01	County of Peterborough		
14462	Feb. 26, '02	Jas. Baptie, *et al*	Pts. Nos. 26 and 27, Con. 5	Township of Smith
14477	Apl. 10, '02	Jno. C. Oliver		
14499	" 16, '02	Geo. Martin, *et ux*	W. ½ of No. 21, Con. 8	Township of Fenelon.

* Too late for last year's Report.

Department of Railways and Canals,
Ottawa, August 29, 1902.

Railways and Canals during the Fiscal Year ended June 30, 1902—*Concluded.*

CANAL.

County.	Area.	Amount.	Remarks.
		$ cts.	
Peterborough	3·95 acres		Letters Patent.
Victoria	22·71 "	250 00	
"	2·63 "	60 00	
"	42·75 "	624 60	
Peterborough	3·66 "	1 00	
"	3·76 "	273 00	
Victoria			Letters Patent.
"	4·25 acres	125 00	
"	0·30 "	300 00	
Peterborough	24·88 "	1,050 00	
		And int. at 5% and 1,825 00	
Ontario	4·33 acres	250 00	
"	0·2 "	20 00	
"	0·204 "	16 00	
"	0·008 "	2 00	
"	0·566 "	50 00	
Peterborough	0·5 "		Letters Patent.
Ontario	0·95 "	50 00	
"	0·47 "	40 00	
		200 00	Release, costs incurred in raising approaches to Rosedale Bridge.
		1,500 00	Release, construct'n, etc. of Cowan's Bdge
		8,000 00	Release, all claims in connection with Bridge across Lake Chemong.
Peterborough		1,100 00	Release, damages by flooding.
		55 00	Release, damages for injuries to a horse.
Victoria		125 00	Release, damages by flooding.

GERARD RUEL,
Law Clerk.

PART V

CANAL STATISTICS

FOR THE

SEASON OF NAVIGATION

1901

CANAL STATISTICS

FOR

SEASON OF NAVIGATION 1901

REVENUE.

The total revenue, exclusive of hydraulic rents for two years, is as follows :—

For 1900	$ 269,116 25
For 1901	250,949 57

By comparing the statistics of 1900 with 1901, it will be seen that the gross revenue has decreased $18,166.68.

The increases and decreases are as follows :—

	Increase.	Decrease.
On the Welland Canal		$ 17,354 46
" St. Lawrence Canals	$ 291 33	
" Chambly Canal	654 17	
" Ottawa Canals	37 16	
" Rideau Canal		2,077 27
" St. Peters Canal	243 47	
" Trent Valley Canals		123 97
" Murray Canal	219 40	
" Sault Ste. Marie Canal		56 51
Total	$ 1,445 53	$ 19,612 21
Total decrease		18,166 68

STATEMENT of the Revenue, together with the increases and decreases of all the Canals for the seasons of Navigation from 1891 to 1901, inclusive.

Years.	Revenue.	Increase.	Decrease.
1891	$ 350,351 97	$ 2,292 46	
1892	358,711 04	8,359 07	
1893	348,012 00		$ 10,699 04
1894	307,824 67		40,187 33
1895	283,211 41		24,613 26
1896	350,061 03	66,849 62	
1897	346,758 87		3,302 16
1898	341,679 23		5,079 64
1899	291,652 37		50,026 86
1900	269,116 25		22,536 12
1901	250,949 57		18,166 68

In compliance with the renewed request of forwarders and shippers of Montreal and the management of the Canada Atlantic Railway Co., for a reduction of tolls on certain agricultural products, His Excellency the Governor General in Council on May 3, 1901, authorized a reduction of canal tolls, as follows :—

For the season 1901 the canal tolls for the passage of the following food products, wheat, indian corn, pease, barley, rye, oats, flax-seed and buckwheat for through passage

eastward through the Welland Canal, shall be 10 cents per ton, and for through passage eastward through the St. Lawrence Canals, only 10 cents per ton, payment of the said tolls of 10 cents per ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals, or any portion thereof; further, in the case of any of the above named products brought down from Parry Sound over the line of the Canada Atlantic Railway Company to their elevator at Coteau Landing, the through rate thereon from that point to Montreal, to be 2½ cents per ton.

In consequence of the reduced rate of tolls, as above, being applicable to the said food products, irrespective of their destination, the reduced rate of 10 and 5 cents a ton respectively only was collected, and therefore no refunds were made on these articles for 1901.

It may be observed, however, that the reduction of tolls from 20 to 10 cents per ton on the articles referred to, for passage through the Welland Canal, amounts to $25,578.70.

The quantity of barley, corn, oats, pease, rye and wheat passed down the Welland Canal, from ports west of Port Colborne for a period of twenty years is as follows :—

	Quantity passed down to Montreal.	Quantity on which full tolls were paid.	
		To ports in Ontario.	Quantity from U.S. Ports to U.S. Ports.
	Tons.	Tons.	Tons.
1882	180,694	..	63,881
1883	186,814	10,650	121,876
1884	142,194	12,153	104,537
1885	96,569	11,909	117,346
1886	203,940	9,881	151,551
1887	185,034	11,838	134,868
1888	160,358	25,599	169,664
1889	267,769	19,075	213,766
1890	288,513	16,899	245,932
1891	295,509	6,805	202,710
1892	261,954	8,942	201,540
1893	501,806	25,555	222,958
1894	273,651	16,699	203,979
1895 *	231,491	32,096	133,823
1896	461,049	73,386	160,372
1897	560,254	53,257	157,756
1898	519,532	31,279	144,612
1899	332,746	40,197	68,011
1900	244,661	17,525	84,589
1901	151,566	83,370	13,732

The tolls on grain for passage through the Welland Canal prior to 1884 were 20 cents a ton; since that date, however, reductions have been made by Orders in Council from year to year as follows :—Upon the urgent request of forwarders and others interested in the grain trade, a reduction was made of one-half the usual rate of tolls on grain passing down the Welland Canal and the St. Lawrence Canals to Montreal; and in 1885 tolls were reduced to 2 cents a ton, and thereafter from year to year, including 1891.

In 1892 the tolls were reduced to 2 cents a ton on grain passed down the Welland and St. Lawrence Canals and exported, and in such cases only.

In 1893 by Order in Council of February 13, the tolls were reduced to 10 cents a ton on grain passing eastward through the Welland Canal, irrespective of its destination, and the same rate of tolls for 1894 were allowed by O.C., April 16, 1894.

* Of the quantity of grain passed down to Montreal there were transhipped at Ogdensburg in 1891, 17,817 tons; in 1892, 4,341 tons; in 1893, 71,445 tons; in 1894, 23,030 tons; in 1895, 18,987 tons; in 1896, 77,355 tons; in 1897, 89,659 tons; in 1898, 40,257 tons; in 1899, 48,828 tons, in 1900, 38,403 tons, and 17,387 tons in 1901.

For the year 1895 (O.C., April 1, 1895), the same rate of tolls was allowed as was granted for the year 1894.

For the year 1896 (O.C., April 23, 1896,) the same rate of tolls was allowed as was granted for the year 1895.

For the year 1897 (O.C., April 17, 1897,) the same rate of tolls was allowed as was granted for the year 1896.

For the year 1898 (O.C., June 1, 1898,) the same rate of tolls was allowed as was granted for the year 1897.

For the year 1899 (O.C., April 10, 1899), the same rate of tolls was allowed as was granted for the year 1898.

For the year 1900 (O.C., February 20, 1900,) t' e same rate ot tolls was allowed as was granted for the year 1899.

For the year 1901 (O.C., May 3, 1901), the same rate of tolls was allowed as was granted for the year 1900.

The rate through the St. Lawrence Canals only, was 10 cents a ton.

It may be remarked that goods having paid full tolls on the Welland Canal are allowed to pass down the St. Lawrence Canals to Montreal free from payment of any further tolls.

During the last decade the quantity of agricultural products as above, passed down the Welland and St. Lawrence Canals to Montreal, has decreased from 261,954 tons in 1892 to 151,566 tons in 1901 ; and the quantity passed down the Welland Canal from United States ports to United States, has decreased from 201,540 to 83,370 tons for the same years.

The quantity of barley, buckwheat, corn, oats, pease, rye and wheat, arrived at Montreal via Grand Trunk and Canadian Pacific Railways for a period of 13 years, is reported as follows :—

	Tons.
For 1889	94,943
1890	119,208
1891	184,410
1892	291,680
1893	147,610
1894	60,666
1895	51,114
1896	153,717
1897	228,611
1898	293,391
1899	209,170
1900	229,624
1901	227,700

The quantity of the same articles passed down the whole length of the St. Lawrence Canals to Montreal, for the same period was :—

	Tons.
For 1889	275,414
1890	242,571
1891	320,434
1892	302,899
1893	532,084
1894	288,015
1895	247,550
1896	495,898
1897	604,200
1898	575,097
1899	372,291
1900	295,928
1901	203,316

Comparative shipments of grain by the St. Lawrence route, and rail and water via the state of New York, are as follows :—

QUANTITY OF GRAIN TO SEA-BOARD BY COMPETING ROUTES.

The quantity of grain and pease passed down the whole length of the St. Lawrence Canals to Montreal, is as follows :—

	Tons.
For 1900	295,928
1901	203,316
Showing a decrease of	92,612

The quantity of grain and pease carried to Montreal via Canadian Pacific and Grand Trunk Railways, is reported as follows :—

	Tons.
For 1900	229,624
1901	227,700
Showing a decrease of	1,924

The quantity of grain arrived at tide-water by New York Canals, is reported as follows :—

	Tons.
For 1900	308,945
1901	355,760
Showing an increase of	46,815

The quantity of grain carried to tide-water by the New York railways, is reported as follows :—

	Tons.
For 1900	4,396,441
1901	4,630,479
Showing an increase of	234,038

The increases and decreases for 1901 as compared with 1900 on the several routes, competing for the carrying trade to the seaboard, are as follows :—

——	Increase.	Decrease.	Increase.	Decrease.
	Tons.	Tons.	per cent.	per cent.
On the St. Lawrence Canals		92,612		31·22
" Canadian Pacific and Grand Trunk Railway		1,924		0·83
" New York Canals	46,815		11·92	
" " Railways	234,038		5·32	

By reference to Appendix U, it will be seen that the quantity of freight from ports west of Port Colborne to the United States ports, Oswego, Ogdensburg, &c., has decreased from 311,400 tons in 1890 to 175,169 tons in 1901, and the quantity to Ontario ports, between Port Dalhousie and Cornwall, and from 144,301 tons in 1890 to 142,346 tons in 1901. The quantity passed down to Montreal shows a decrease from 235,972 tons in 1890 to 184,420 tons in 1901.

TRANSHIPMENT OF GRAIN.

The quantity of grain passed down the Welland Canal in Canadian and United States vessels to Kingston and Prescott for fifteen years, is as follows :—

In Canadian vessels there were in—

			Tons.
1887,	284	Cargoes, with an aggregate quantity of	178,233
1888,	182	" "	143,025
1889,	208	" "	165,117
1890,	203	" "	184,275
1891,	209	" "	190,664
1892,	158	" "	159,018
1893,	146	" "	148,962
1894,	125	" "	159,145
1895,	123	" "	136,617
1896,	196	" "	227,912
1897,	180	" "	229,265
1898,	166	" "	224,021
1899,	162	" "	221,306
1900,	325	" "	183,200
1901,	112	" "	132,558

In the United States vessels there were in—

			Tons.
1887,	19	Cargoes, with an aggregate quantity of	12,477
1888,	60	" "	43,667
1889,	114	" "	108,358
1890,	35	" "	35,560
1891,	77	" "	90,153
1892,	89	" "	109,812
1893,	257	" "	328,269
1894,	84	" "	106,236
1895,	56	" "	73,987
1896,	158	" "	217,978
1897,	197	" "	285,847
1898,	339	" "	464,852
1899,	167	" "	205,571
1900,	259	" "	163,575
1901,	135	" "	123,229

Twenty-three Canadian and two American vessels took cargoes of 17,303 tons through to Montreal intact in 1901, 15 of 7,924 tons in 1900, 2 of 558 tons in 1899, seven of 2,426 in 1898, seven of 2,324 in 1897, three of 1,176 in 1896, four of 1,344 tons in 1895, two cargoes of 810 tons in 1894, none in 1893, two in 1892, of 924 tons, and three in 1891 of 1,441 tons. Three vessels lightened a portion of their cargoes in 1901, 9 in 1900, 11 in 1899, 25 in 1898, 11 in 1897, 16 in 1896, 6 in 1895 19 in 1894, 34 in 1893, 25 in 1892, and 44 in 1891 ; 222 vessels discharged the whole of their cargoes at Kingston in 1901, 540 in 1900, 316 in 1899, 473 in 1898, 359 in 1897, 335 in 1896, 169 in 1895, 188 in 1894, 369 in 1893, 220 in 1892, and 293 in 1891.

The quantity of grain transhipped at Port Colborne in 1901 and the four previous years is given below.

The total number of grain laden vessels lightened at this port in 1901 was 98 against 68 the previous year.

The quantity of grain lightened was as follows :—

Articles.	1897.	1898.	1899.	1900.	1901.
	Bush.	Bush.	Bush.	Bush.	Bush.
Wheat	642,927	239,518	390,162	272,609	393,490
Corn	697,508	313,689	638,143	448,256	556,911
Rye	Nil	37,380	7,065	Nil	Nil.
Oats	12,527	Nil	Nil	Nil	76,236
Barley	5,119	5,669	Nil	Nil	27,115

Welland Canal.

The total quantity of freight passed on the Welland Canal during the season of 1901 was 620,209 tons ; of this quantity 15,259 tons were way or local freight.

There were 513,804 tons of freight passed eastwards, and 106,405 tons passed westwards.

East and west bound Through freight.

The total quantity of through freight passed through the whole length of the Welland Canal during the season of 1901 was 604,950 tons.

Of this quantity 501,935 tons were east bound and 103,015 west bound freight.

Of the east bound through freight, Canadian vessels carried 271,087 tons and United States vessels carried 230,848 tons ; and of the west bound through freight Canadian vessels carried 5,732 tons, and United States vessels carried 83,569 tons, or a total of 276,819 tons for Canadian and 314,417 tons for American vessels.

St. Lawrence Canals.

The total quantity of freight passed through these canals during 1901 was 1,208,296 tons, of this quantity 1,012,211 tons passed eastward and 196,085 passed westward.

East and west bound Through freight.

The total quantity of through freight was 585,385 tons ; of this quantity 549,974 tons were east bound and 35,411 tons were west bound.

Way freight.

Of the total quantity of (way) or local freight 462,237 tons were east bound and 160,674 tons west bound freight.

THROUGH TRAFFIC BETWEEN MONTREAL AND PORTS ON LAKE ERIE, MICHIGAN, ETC.

The total quantity of through freights passed eastward and westward through the Welland and St. Lawrence Canals, from Lake Erie to Montreal, during fifteen years, is as follows:—

	Eastward to Montreal. Tons.	Westward from Montreal. Tons.
1887	213,834	14,075
1888	183,899	19,310
1889	298,197	25,370
1890	231,746	13,951
1891	309,593	14,060
1892	263,144	9,452
1893	508,016	16,545
1894	292,191	9,439
1895	266,659	10,555
1896	480,077	10,050
1897	584,246	4,542
1898	538,108	4,436
1899	354,933	5,991
1900	288,251	6,217
1901	184,420	13,714

THROUGH FREIGHT FROM UNITED STATES PORTS TO UNITED STATES PORTS.

The total quantity of through freight passed eastward and westward through the Welland Canal, from United States ports to United States ports, for a period fifteen years, is as follows:—

	Eastward. Tons.	Westward. Tons.	Total. Tons.
1887	189,427	151,074	340,501
1888	221,062	213,689	434,751
1889	297,353	266,231	563,584
1890	318,259	215,698	533,957
1891	306,257	247,543	553,800
1892	300,733	240,332	541,065
1893	384,559	247,108	631,667
1894	361,319	230,948	592,267
1895	255,259	214,520	469,779
1896	385,695	267,518	653,213
1997	353,863	210,831	564,694
1898	277,023	210,516	487,539
1899	225,491	135,038	360,529
1900	218,969	99,560	318,529
1901	190,476	83,543	274,019

The total quantity of freight passed through the Welland Canal from United States ports to United States ports shows a decrease of 41,549 tons, as compared with the previous year; and a decrease of 63,521 tons, as compared with 1887.

The following statement shows the aggregate number of vessels, and the total quantity of freight passed through the Welland Canal, and the quantity passed between United States ports during the years 1867 to 1901, inclusive :—

Fiscal Year.	Aggregate number of vessels.	Total quantity transported on the Welland Canal.	Quantity passed from United States ports to United States ports.
	Number.	Tons.	Tons.
1867	5,405	933,260	458,386
1868	6,157	1,161,821	641,711
1869	6,069	1,231,903	688,700
1870	7,356	1,311,956	747,567
1871	7,729	1,478,122	772,756
Season of navigation.			
1872	6,063	1,333,104	606,627
1873	6,425	1,506,484	656,208
1874	5,814	1,389,173	748,557
1875	4,242	1,038,050	477,809
1876	4,789	1,099,810	488,815
1877	5,129	1,175,398	493,841
1878	4,429	968,758	373,738
1879	3,960	865,664	284,043
1880	4,104	819,934	179,605
1881	3,332	686,506	194,173
1882	3,334	790,643	282,806
1883	3,267	1,005,156	432,611
1884	3,138	837,811	407,079
1885	2,738	784,928	384,509
1886	3,589	980,135	464,478
1887	2,785	777,918	340,501
1888	2,647	878,800	434,753
1889	2,975	1,085,273	563,584
1890	2,883	1,016,165	533,957
1891	2,594	975,013	553,800
1892	2,615	955,554	541,065
1893	2,843	1,294,823	631,667
1894	2,412	1,008,221	592,267
1895	2,222	869,595	469,779
1896	2,766	1,279,987	653,213
1897	2,725	1,274,292	564,694
1898	2,384	1,140,077	487,539
1899	2,202	789,770	360,529
1900	2,399	719,360	318,529
1901	1,547	620,209	276,980

The total quantity of freight passed through the several divisions of the canals during the season of 1901 is as follows :—

	Farm Stock.	Forest Produce of Wood.	Manufactures.	Merchandise.	Agricultural Products.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland	5	85,538	46,343	186,964	301,359	620,209
St. Lawrence	1,338	99,333	79,462	468,755	589,408	1,208,296
Chambly	275	196,668	12,697	119,670	30,488	359,798
Ottawa	1,138	434,343	729	2,916	6,736	445,862
Rideau	2	21,771	2,261	28,925	3,417	56,376
St. Peters	19	18,115	6,085	53,064	10,974	88,257
Murray	16	9,223	2,198	14,331	3,767	29,535
Trent Valley	188	35,573	114	78	579	36,532
Sault Ste. Marie	497	41,732	69,969	2,213,087	495,109	2,820,394

The total quantity of freight moved on the Welland Canal was 620,209 tons, of which 301,359 tons were agricultural products.

On the St. Lawrence Canals the total quantity of freight moved was 1,208,296 tons, of which 589,408 were agricultural products, and 468,755 tons were merchandise.

On the Ottawa Canals the total quantity of freight moved was 445,862 tons, of this quantity 434,343 tons were the produce of the forest.

STATISTICAL COMPARISON OF VARIOUS UNITED STATES ROUTES.

The statistical comparisons heretofore given in respect to the quantities of the principal articles carried through the Welland Canal, and those carried over routes in the United States, in competition with that work, have been continued to date.

By reference to statement H, as to the quantity of vegetable food carried to tide-water, it will be observed that the quantity carried by the New York Canals was 557,-099 tons in 1901, 472,857 in 1900, 577,486 in 1899, 653,027 in 1898, 744,575 in 1897, 957,182 in 1896, 606,505 in 1895, 1,400,129 in 1894, 1,450,116 in 1893, 937,999 in 1892, and 1,092,385 in 1891.

The quantities of vegetable food carried by the New York Central, Erie and New York, West Shore and Buffalo Railways being :—

	Tons.		Tons.
In 1901	6,334,001	In 1887	*3,847,766
1900	6,053,005	1886	*3,802,262
1899	6,211,827	1885	4,105,594
1898	7,060,542	1884	3,639,805
1897	5,673,638	1883	4,422,461
1896	5,183,540	1882	3,885,557
1895	3,798,574	1880	4,732,385
1894	4,281,056	1869	1,087,809
1893	*5,107,426		
1892	5,913,013		
1891	3,565,381		
1890	4,336,199		
1889	3,654,984		
1888	3,197,734		

* Flour and grain only.

The following figures are an abstract of the quantities of vegetable food carried to tide-water by the canals and railways of the State of New York during thirty-three years :—

	Canals.	Railways.	Total.	Proportions by canals.
	Tons.	Tons.	Tons.	Tons.
1869	1,302,613	1,087,809	2,390,342	·545
1870	1,295,010	1,766,457	3,061,467	·423
1871	1,850,198	2,205,589	4,055,787	·456
1872	1,674,320	1,870,614	3,544,934	·472
1873	1,745,171	2,036,992	3,782,163	·461
1874	1,767,598	2,791,517	4,559,115	·387
1875	1,305,550	2,343,241	3,648,791	·357
1876	1,064,293	2,875,803	3,940,096	·270
1877	1,498,984	2,493,683	3,992,667	·375
1878	1,912,734	3,695,764	5,608,498	·341
1879	1,833,399	4,353,617	6,187,016	·296
1880	2,371,090	4,732,385	7,103,475	·333
1881	1,116,561	4,983,722	6,100,283	·183
1882	1,118,776	3,885,557	5,004,333	·223
1883	1,379,000	4,422,461	5,801,461	·237
1884	1,236,986	3,639,805	4,876,791	·253
1885	1,063,310	4,105,594	5,168,904	·205
1886	1,489,886	3,802,262	5,292,148	·281
1887	1,539,403	3,847,766	5,387,169	·285
1888	1,166,958	3,197,734	4,364,692	·267
1889	1,296,896	3,654,984	4,951,880	·262
1890	1,167,901	4,336,199	5,504,100	·212
1891	1,092,355	3,565,381	4,657,736	·234
1892	937,999	5,913,013	6,851,012	·137
1893	1,452,563	5,107,426	6,599,989	·284
1894	1,400,129	4,281,056	5,681,185	·327
1895	602,505	3,798,574	4,401,079	·159
1896	957,182	5,183,540	6,140,722	156
1897	744,575	5,673,638	6,418,213	·116
1898	653,027	7,060,542	7,713,569	·085
1899	577,486	6,211,827	6,789,313	·086
1900	472.857	6,053,005	6,525,862	.073
1901	557,099	6,334,001	6,891,100	·081

COMPARATIVE STATEMENT OF TRAFFIC BY RAILWAYS AND CANALS VIA THE STATE OF NEW YORK.

On reference to the returns made by the railways to the state authorities of New York, and to the canal statistics submitted to the state legislature, I find that of the total tonnage of freight carried by the canals and railways, the state canals carried :—

	Per cent.		Per cent.
In 1859	68·9	In 1885	17·1
1869	47·0	1886	16·9
1870	38·9	1887	16·3
1871	38·9	1888	18·8
1872	40·1	1889	15·1
1873	34·9	1890	13·9
1874	31·7	1891	13·4
1875	28·4	1892	9·8
1876	24·6	1893	10·1
1877	28·3	1894	10·2
1878	27·1	1895	9·7
1879	23·7	1896	8·5
1880	25·1	1897	8·3
1881	18·5	1898	6·9
1882	19·0	1899	7·2
1883	18·7	1900	5·2
1884	19·0	1901	5·1

The quantity of freight carried by the canals and railways was greater in 1901 by 217,296 tons than the quantity carried in 1900, and an increase of 53,187,663 tons over 1869.

The quantities carried were as follows :—

	Total Tonnage.	Proportion by canals.
In 1859	5,485,076	·6890
1869	12,453,174	·4705
1870	15,148,274	·3895
1871	15,844,152	·3896
1872	16,631,609	·4012
1873	18,200,208	·3497
1874	18,283,547	·3174
1875	17,101,758	·2841
1876	16,948,627	·2462
1877	17,489,770	·2833
1878	19,017,301	·2719
1879	22,590,766	·2373
1880	25,706,586	·2512
1881	27,857,394	·1859
1882	28,693,054	·1905
1883	30,167,119	·1877
1884	26,293,844	·1905
1885	27,543,948	·1718
1886	31,168,744	·1698
1887	34,029,791	·1632
1888	26,244,610	·1883
1889	35,466,042	·1514
1890	37,624,199	·1394
1891	38,524,179	·1343
1892	43,618,569	·0982
1893	42,953,233	·1009
1894	37,916,412	·1024
1895	36,170,339	·0967
1896	43,756,051	·0849
1897	43,711,512	·0828
1898	49,311,030	·0682
1899	51,702,761	·0713
1900	65,433,541	·0512
1901	65,640,837	·0506

Average freight rates, grain, Chicago to Buffalo :—(as reported by the Secretary Merchants' Exchange, Buffalo).

Year.	Wheat.	Year.	Wheat.
1881	3·2	1893	1·6
1882	2·5	1894	1·2
1883	3·5	1895	1·9
1884	2·1	1896	1·7
1885	2·0	1897	1·5
1886	3·6	1898	1·5
1887	4·1	1899	2·5
1888	2·7	1900	1·8
1889	2·5	1901	1·6
1890	1·9		
1891	2·5	Average twenty-one years	2·3
1892	2·2		

COMPARATIVE STATEMENT of the Commerce through the United States St. Mary's Falls Canal and Canadian Sault Ste. Marie Canal, for the Seasons of 1900 and 1901.

		TRAFFIC FOR 1901.		TOTAL TRAFFIC FOR		INCREASE.	DECREASE.
		United States Canal.	Canadian Canal.	Season of 1901.	Season of 1900.	Amount.	Amount.
Vessels	Number.	15,837	4,204	20,041	19,450	591	
Lockages	"	8,411	2,910	11,321	10,684	637	
Tonnage registered	Net tons.	22,222,534	2,449,748	24,672,082	22,331,530	2,340,552	
" freight	"	25,582,038	2,820,394	28,402,432	25,643,031	2,759,401	
Passengers	Number.	29,701	30,031	59,732	58,593	1,139	
Coal (hard)	Net tons.	730,441	77,702	808,143	512,575	295,568	
" (soft)	"	3,352,752	432,691	3,785,443	3,982,412		196,969
Flour	Barrels.	6,432,064	1,245,243	7,677,307	6,771,402	905,905	
Wheat	Bushels.	43,217,104	9,639,627	52,856,731	40,616,807	12,239,924	
Grain (excluding wheat)	"	22,056,333	2,709,425	24,765,758	16,181,659	8,584,099	
Manufactured and pig iron	Net tons.	151,502	29,259	180,761	140,661	40,100	
Salt	Barrels.	389,889	48,836	438,725	330,958	107,767	
Copper	Net tons.	86,903	11,798	98,701	132,106	33,405	
Iron ore	"	16,493,916	1,596,549	18,090,465	16,439,208	1,551,257	
Lumber	Ft. B.M.	1,060,880,000	12,553,948	1,073,433,948	905,528,806	167,905,142	
Silver ore	Net tons.		54	54	110	56	
Building stone	"	42,309	5,128	47,437	47,388	49	
* Unclassified freight	"	431,564	165,622	597,186	541,272	55,914	

The United States canal was open to navigation during the season of—

1889	234 days.
1890	228 "
1891	225 "
1892	233 "
1893	219 "
1894	234 "
1895	231 "
1896	232 "
1897	234 "
1898	241 "
1899	231 "
1900	238 "
1901	230 "

The Canadian canal was open to navigation during the season of—

1895	87 days.
1896	218 "
1897	238 "
1898	243 "
1899	239 "
1900	238 "
1901	246 "

The average number of vessels passing per day through the two canals for the season of 1901 was eighty-four.

R. DEVLIN,
Compiler of Canal Statistics.

OTTAWA, September 2, 1902.

EXPORTS by Lake from Chicago to Canada during the Season of Navigation in 1901.

(From Report of Board of Trade of Chicago.)

Commodities.	Quantity.	Value.
		$ cts.
Wheat	4,943,985	3,562,438 00
Corn	3,213,681	1,508,137 00
Oats	565,605	167,296 00
Rye	209,520	112,441 00
Flaxseed	233,002	362,225 00
Flour	17,545	60,117 00
Oil cake	18,129	72,595 00
Pork	7,595	113,910 00
Lard	4,550	131,001 00
Cured meats	1,015	51,192 00
Agricultural implements	11,323	193,448 00
Lumber	1,498	30,621 00
Manufactured iron	20,120	467,249 00
Unclassified	5,570	221,043 00

GRAIN FREIGHTS BY LAKE, SEASON OF 1901.

The following were the current rates on Wheat and Corn from Chicago to Buffalo, Ogdensburg, Prescott and Depot Harbor; also from Buffalo to New York by Erie Canal, for each week during the Season of Navigation in 1901.

1901.	To Buffalo.		To Ogdensburg.		To Prescott.		To Depot Harbor.		Erie Canal Buffalo. to New York.	
	Wheat per bushel.	Corn per bushel.	Wheat per bushel.	Corn per bushel.	Wheat per bushel.	Corn per bushel.	Wheat per bushel.	Corn per bushel.	Wheat per bushel.	Corn per bushel.
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
April 20	2	1 7/8								
" 27	2	1 7/8								
May 4	2	1 7/8								
" 11	2	1 7/8		4 1/4			2 1/4	2	3 1/4	
" 18	2	1 7/8	4		3 5/8	4	2 1/4	2	3 1/4	
" 25	1 7/8	1 3/4		3 5/8	3 1/4		1 5/8	1 5/8	3 1/4	2
June 1	1 7/8	1 3/4		3 1/2	3		1 5/8	1 5/8	3 1/4	2
" 8	1 3/4	1 5/8	3 1/2	3 1/2	3		1 5/8	1 5/8	3 1/4	2
" 15	1 5/8	1 5/8			2 7/8		1 5/8	1 5/8	3 1/4	2
" 22	1 5/8	1 5/8			2 7/8	2 1/4	1 5/8	1 5/8	3 1/4	2
" 29	1 5/8	1 5/8			2 7/8		1 5/8	1 5/8	3 1/4	2
July 6	1 5/8	1 5/8		3 1/4		2 1/4	1 5/8	1 5/8	3 1/4	2
" 13	1 5/8	1 5/8		3 1/4	2 7/8		1 5/8	1 5/8	3 1/4	2
" 20	1 5/8	1 5/8	3 1/2				1 5/8	1 5/8	3 1/4	2
" 27	1 5/8	1 5/8		3 1/4	3		1 5/8	1 5/8	3 1/4	2
Aug. 3	1 5/8	1 5/8		3 1/4	3		1 5/8	1 5/8	3 1/4	2
" 10	1 5/8	1 5/8		3 1/4			1 5/8	1 5/8	3 1/4	2
" 17	1 5/8	1 5/8	3 1/2	3 1/4	3		1 5/8	1 5/8	3 1/4	2
" 24	1 5/8	1 5/8			3	3	1 5/8	1 5/8	3 1/4	2
" 31	1 5/8	1 5/8			3 1/4		1 5/8	1 5/8	3 1/4	2
Sept. 7	1 5/8	1 5/8		3 1/4		3 1/2	1 5/8	1 5/8	3 1/4	2
" 14	1 5/8	1 5/8		3 1/4			1 5/8	1 5/8	3 1/4	2
" 21	1 5/8	1 5/8		3 1/4			1 5/8	1 5/8	3 1/4	2
" 28	1 5/8	1 5/8		3 1/4		3 1/2	1 5/8	1 5/8	3 1/4	2
Oct. 5	1 5/8	1 5/8		3 1/4			1 5/8	1 5/8	4	2
" 12	1 5/8	1 5/8		3 1/4		3 1/2	1 5/8	1 5/8	4	2
" 19	1 5/8	1 5/8		3 1/2			1 5/8	1 5/8	4	2
" 26	1 5/8	1 5/8	4				1 5/8	1 5/8	4	2
Nov. 2	1 5/8	1 5/8		3 5/8			1 5/8	1 5/8	4	2
" 9	1 5/8	1 5/8		3 5/8			1 5/8	1 5/8	4 1/8	2
" 16	2	1 7/8		3 3/4			2 1/4	2	4 1/4	2
" 23	2 1/8	2 1/4		3 3/4			2 1/4	2 1/4	4 1/8	2
" 30	1 7/8	1 7/8		3 7/8			2 1/8	1 7/8		
Dec. 7	2 1/4	2 1/8								

LAKE FREIGHTS FROM CHICAGO TO BUFFALO ON WHEAT AND CORN.

STATEMENT showing the dates of the changes of the ruling rates of Lake freights on Wheat and Corn from Chicago to Buffalo during 1901 (as reported by the Secretary of the Merchants' Exchange, Buffalo).

1901.	Wheat, Bushels.	Corn, Bushels.	1901.	Wheat, Bushels.	Corn, Bushels.
	Cts.	Cts.		Cts.	Cts.
April 19	2¼	....	June 21	1½	1¼ to 1⅜
" 20	2¼	2⅛	" 22	1½	1⅜
May 1	2⅜	....	July 10	1⅝	.....
" 8	2¼	.....	" 11	1⅝	1⅜
" 9	2	....	" 13	1⅝	1½
" 10	....	1⅞	" 26	1½	1⅜
" 11	2	1⅞	Aug. 2	1⅝	1¼
" 13	1⅞	1⅝	" 12	1¼	1⅜
" 14	1⅞ to 1⅝	1¾ to 1⅞	" 22	1⅜	1¼
" 15	1⅞ to 2	1⅞	" 23	1⅜ to 1⅝	1¼ to 1⅜
" 16	1⅞	1⅝	" 24	1⅝	1½
" 17	1¾ to 1⅞	1⅝ to 1⅝	Oct. 1	.....	1¼
" 18	1⅝	1⅝	" 4	1⅜	1¼
" 20	1⅝	1½	" 21	1¼ to 1⅜	1⅜
" 21	.....	1½	" 23	1¼	1¼
" 22	1¼	1⅜	" 29	1⅜	1¼
" 24	1⅝	1⅝	Nov. 4	1½	.....
" 25	1⅝	1½ to 1⅝	" 5	1⅝	1⅜
" 27	1⅞ to 1⅝	1½ to 1⅝	" 6	1⅝	1½
" 28	1⅝ to 1⅝	1½	" 7	2	1¾
" 29	1⅝	1½	" 8	2	2
" 31	1⅝	1½	" 9	2 to 2⅛	2
June 1	....	1½	" 11	2	2
" 5	1½	.....	" 12	2⅛	2
" 6	.....	1¼	" 13	2 to 2⅛	1⅞ to 2
" 7	.....	1⅜	" 14	2⅛	2
" 10	.....	1⅜ to 1½	" 16	2⅛	2¼
" 11	1⅝	1½	" 25	2¼	.....
" 17	1⅝	1⅜ to 1½	" 27	1⅞ to 2	.....
" 18	1⅝	1½	" 29 to close	....	1¾
" 20	1½	1⅜			

Rates from Milwaukee about the same as from Chicago.

AVERAGE LAKE FREIGHTS.

The following statement shows the average rates of Lake freights on wheat and corn between Chicago and Buffalo during each month in the past ten years, the highest and lowest rate on wheat in each year, and the average rate on wheat each year in cents, per bushel :—

(Per Report of the Secretary of Merchants' Exchange, Buffalo.)

		May.	June.	July.	Aug.	Sept.	Oct.	Nov.
Grain, bushel.		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1892	Wheat	1·9	1·8	2·0	2 3	2·3	2·3	2·6
	Corn	1·7	1·6	1·8	2·1	2·1	2·1	2·3
Highest rate, wheat, 1892, 3c.; lowest, 1c.: average for the season, 2·2c.								
1893	Wheat	1·3	1·8	1·2	1·3	1·7	2·1	2·0
	Corn	1·2	1·6	1·1	1·2	1·5	1·9	1·8
Highest rate, wheat, 1893, 2¾c.; lowest, 1c.; average for the season, 1·6c.								
1894	Wheat	1·4	1·2	0·9	1·0	1·4	1·1	1·3
	Corn	1·2	1·1	0·9	0·9	1 3	1·0	1·3
Highest rate, wheat, 1894, 3c.; lowest, ⅝c.; average for the season, 1·2c.								
1895	Wheat	1·2	1·2	1·1	1·6	2 1	3·0	3·0
	Corn	1·1	1·1	1·0	1·4	1·9	2·9	2 7
Highest rate, wheat, 1895, 3c.: lowest, 1c.; average for the season, 1·9c.								
1896	Wheat	1·6	1·5	1·2	1·3	1·4	2·0	2·1
	Corn	1·4	1·3	1·1	1 2	1·2	1·9	1·9
Highest rate, wheat, 1896, 2⅝c.; lowest, 1¼c.; average for the season, 1·7c.								
1897	Wheat	1 3	1·2	1·3	1·5	2·0	1·8	1·5
	Corn	1·2	1·1	1·2	1·4	1·8	1·7	1·4
Highest rate, wheat, 1897, 2⅝c.; lowest, 1c ; average for the season, 1·5c.								
1898	Wheat	1·3	0·1	0·9	1·2	1·4	2·5	2·3
	Corn	1·2	0·8	0·8	1·1	1·3	2·3	2·1
Highest rate, wheat, 1898, 3¼c.; lowest, 1¼c.; average for the season, 1·5c.								
1899	Wheat	2·0	2 0	2·2	2 5	3·1	3.5	2·5
	Corn	1·8	1·9	2·0	2·3	3·2	3·4	2·3
Highest rate, wheat, 1899, 3⅜c.; lowest, 1⅝c.; average for the season, 2·5c.								
1900	Wheat	1·8	1 9	2·1	1·6	1·7	1·7	2·0
	Corn	1·6	1·7	2·0	1·5	1·6	1·5	1·8
Highest rate, wheat, 1900, 3c.; lowest, 1¼c.; average for the season, 1·8c.								
1901	Wheat	1·9	1·5	1·6	1·3	1·6	1·3	2·0
	Corn	1·8	1·3	1·4	1·2	1·5	1·2	1·2
Highest rate, wheat, 1901, 2½c.; lowest, 1¼c.; average for season, 1·60c.								

LAKE FREIGHTS FROM DULUTH TO BUFFALO ON WHEAT (AS REPORTED BY THE SEC. OF THE MERCHANTS' EXCHANGE, BUFFALO, N.Y.)

The following statement shows the Lake Freight rates on Wheat from Duluth to Buffalo, during the season of 1901 :—

1901.	Wheat Bushels.	1901.	Wheat Bushels.
	Cts.		Cts.
May 1	2⅛	October 2	2¼
" 13	2	" 14	2⅛
" 27	1⅞	" 19	2¼
June 1	1⅞	" 23	2¾
" 17	2	" 28	3
" 24	2⅛	November 2	3
July 1	2⅛	" 4	3¼
" 13	2⅛	" 18	3¼
" 27	1¾	" 21	3¾
August 5	1⅝	To end of season	3
" 24	1⅞		
September 2	2⅛		
" 30	2¼		

In 1885 the range of freights on wheat, Duluth to Buffalo, was 1½ to 5c.; in 1886, 3¼ to 8c.; in 1887, 5 to 8c.; in 1888, 2 to 5c.; in 1889, 2 to 5c.; in 1890, 2 to 5c.; in 1891, 1¼ to 9½c.: in 1892, 2¼ to 4c.; in 1893, 1¼ to 3½c.; in 1894, 1¼ to 3c.; in 1895, 2 to 6c.; in 1896, 1¼ to 3c.; in 1897, 1 to 2½c.; in 1898, 1 to 3½c.; in 1899, 2½ to 6c.; in 1900, 1½ to 3¾c.; and in 1901, 1⅛ to 3¾c. per bushel.

The first departure by lake, at Duluth, in 1901 was on May 6; in 1900 was on April 22; in 1899, on April 29; in 1898, was on April 16; in 1896, on April 22, and in 1895, on April 21. In 1894 season opened on April 19; in 1893, on May 8; in 1892, on April 21; in 1891, on April 30; in 1890, on March 26; in 1889, on April 20; in 1888, on May 12; in 1887, on May 4; in 1886, on May 7.

Wheat was shipped at Kingston, Canada, per bushel, during the season of 1887, at 6¼ to 7¾c.; in 1888, at 4 to 5c.; in 1889, at —, in 1890, 5¾, 5½, 4½, 4¼, 4c.; in 1891, during May, 3¾, 3½, 2½c.; during June, 3c.; and on July 25, 2½c.; in 1892, 5c. in April; 5 to 5¼c. in May; 4c. in June; 4½c. in July; 3c, in August; 6 to 6¼c. in October; in 1893, ranged from 5½ to 4½c. in April; 4½ to 4¾c. in May; 4 to 3½c. in June; 2¾ to 3c. in July; 3½ to 3¾c. in September; no figures quoted after that date. In 1894 ranged from 3¼ to 3½c. in May; 3½c. in June; 2½c. in July; 2½ to 3¼c. in August; 4c. in September, and 4¼c. in October. On August 25 and November 3, 1894, wheat to Ogdensburg, at 3¼c. and 4½c., respectively. In 1895, wheat to Kingston from 3c to 5c. In 1896, wheat to Kingston from 3c. to 5½c.; and in 1897, wheat to Kingston 3c. to 3⅛c., according to time of year; 1898 and 1899 not given.

Lake Freights from Toledo to Buffalo on Wheat.

The following statements show the ruling rates of Lake Freights, on wheat from Toledo to Buffalo, during the season of 1901 on the dates specified, as reported by the Secretary Merchants Exchange Buffalo.

Date, 1901.	Wheat and Corn per Bushels.	Date, 1901.	Wheat Bushels.
	Cts.		Cts.
Opening to July 7	1¼	August 1 to close of season	1¼
July 7 to August 1	2¼		

The range for 1886 was 1¾ to 3c.; for 1887, 2¼ to 3c.; for 1888, 1½ to 2⅛c.; for 1889, 1¾ to 2c.; for 1890, 1½ to 2c.; for 1891, 1 to 3c.; for 1892, 1½ to 2½c.; for 1893, 1 to 2c.; for 1894, 1 to 2c.; for 1895, 1 to 2¼c.; for 1896, 1¼ to 1¾c.; for 1897, 1 to 1¼c., and for 1898, 1 to 1½c.; for 1899, 1½ to 2c.; for 1900, 1½ to 2c., and for 1901, 1¼ to 1½c.

From Toledo to Ogdensburg, wheat and corn shipped, at 6 to 7c. in 1887; at 4½ to 6c. for wheat and 5c. for corn in 1888; and 5c. to 5⅞c. for wheat in 1889 per bushel. From Toledo, on October 8, 1887, corn shipped to Kingston at 3½c., and on November 12, at 4½c. per bushel. In 1888, corn Toledo to Kingston, 4¼c. to 3c.; and wheat at 3½ to 3c per bushel. In 1889, wheat Toledo to Kingston, 3c.; and in 1891, rye Toledo to Kingston at 3c. per bushel. From Toledo, on June 2, 1887, wheat shipped to Montreal by propeller at 6½c.: on June 14, corn at same price; but on September 26, the rate on corn was only 5c. per bushel. In 1888, corn Toledo to Montreal, at 6 to 5¾c. and wheat at 5½c. per bushel. From 1889 to 1899, no shipments to Montreal or other places in Canada reported.

Canal Freight from Buffalo to New York.

The following shows the changes in the ruling rates of freight to New York from Buffalo, on the days specified in 1901 (as reported by the Secretary, Merchants' Exchange, Buffalo.

Date, 1901.	Wheat Bushels.	Corn Bushels.	Date, 1901.	Wheat Bushels.	Corn Bushels.
	Cts.	Cts.		Cts.	Cts.
May 7	3½	...	Sept. 30	4	3⅜
" 24	3¼	2⅞	Nov. 7	4⅛	3⅝
August 19	3¼	3	" 16	4¼	3⅝
Sept. 18	3½	3¼	Nov. 20 to close	4⅜	4⅛

The freight on oats varied from 2⅛ to 2⅝c. per bushel. Pine lumber, per 1,000 feet, was carried from Buffalo to Tonawanda to New York as follows: Opened at $1.75; June, July, August, $1.75; September, $1.75 to $2; October, $2 to close $2.10. Rates to Albany opened $1.25; June, July, August, $1.35; September, $1.35 to $1.60 to close $1.75.

AVERAGE CANAL FREIGHTS.

BUFFALO TO NEW YORK.

The following statement shows the average rates of canal freights on wheat and corn between Buffalo and New York during each month in the past ten years, and the highest and lowest rates on wheat and average rate on wheat in each :—

(Reported by Sec. Merchants' Exchange, Buffalo.)

	Grain.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1892	Wheat	2·7	2·2	2·4	3·0	3·8	4·7	4·6
	Corn	2·4	2·0	2·2	2·6	3·4	4·4	4·3
Highest rate, wheat, 1892, 6c. ; lowest, 2⅛c. ; average for the season, 3·5c.								
1893	Wheat	4·8	4·8	4·6	4·6	4·0	4·7	4·8
	Corn	4·4	4·4	4·3	4·2	3·6	4 3	4·5
Highert rate, wheat, 1893, 5c. ; lowest, 3·6c. ; average for the season, 4·6c.								
1894	Wheat	3·1	2·9	3·3	3·4	3·6	2·9	3·0
	Corn	2·8	2·6	3·0	3·1	3·3	2·6	2·7
Highest rate, wheat, 1894, 4c. ; lowest, 2·6c. ; average for the season, 3·2c.								
1895	Wheat	1·9	1·7	2·0	2·0	2·1	2·5	2·7
	Corn	1·7	1·5	1·7	1·7	2·0	2·2	2·5
Highest rate, wheat, 1895, 3c. ; lowest, 1·9c. ; average for the season, 2.2c.								
1896	Wheat	3·7	3·7	3·7	3·7	3·7	3·7	3·8
	Corn	3·5	3·5	3·5	3·5	3·5	3 5	3·6
Highest rate, wheat, 1896, 4c. ; lowest, 3 1c. ; average for the season, 3·7c.								
1897	Wheat	2·6	2·2	2·3	2·5	3·3	3·1	3·5
	Corn	2·2	1·8	2·0	2 2	2·8	2·6	3·0
Highest rate, wheat, 1897, 3·5c. ; lowest, 2c. ; average for the season, 2·8c.								
1898	Wheat	3·0	2·9	2·8	2·7	2·6	3·0	3·0
	Corn	2·5	2·3	2·4	2·1	2·2	2·6	2·6
Highest rate, wheat, 1898, 3·4c. ; lowest, 2·5c. ; average for the season, 2·8c.								
1899	Wheat	2·5	2·7	2·4	2·5	2·5	3·6	4·2
	Corn	2·3	2·3	2·1	2·1	2·2	3·0	3·5
Highest rate, wheat, 1899, 4·5c. ; lowest, 2·5c. : average for the season, 3·c.								
1900	Wheat	2·4	2·2	2·3	2·3	2·2	2·7	3·5
	Corn	2·1	2·0	2·1	2·0	2·0	2·4	3·0
Highest rate, wheat, 1900, 3½cc. ; lowest, 2c. ; average for the season, 2·5c.								
1901	Wheat	3.4	3·2	3·2	3·2	3·3	4·0	4·1
	Corn	2·7	2·8	2·8	2·9	3·1	3.7	3·8
Highest rate, wheat, 1901, 4⅜c. ; lowest, 3¼c. ; average for the season, 3·5c.								

Note.—Canal free of tolls since 1882.

FREIGHT, TOLLS, ELEVATING AND STORAGE RATES COMPARED.

The following statement shows the receipts of grain and flax seed at Buffalo, the average canal freight on wheat, and the tolls on wheat to New-York, and the elevating and storage rates at Buffalo for a series of years (as reported by Secretary, Merchants' Exchange, Buffalo) :

Year.	Grain received.	Average Canal Freight on Wheat.	Tolls on Wheat.	Elevating, including Storage.
	Bush.	Cts.	Cts.	Cts.
1870	32,208,039	11·2	3·1	1¼
1871	61,319,313	12·6	3·1	1¼
1872	58,703,666	13·0	3·1	1¼
1873	65,498,955	11·4	3·1	1¼
1874	55,660,198	10·0	3·1	1¼
1875	52,833,451	7·9	2·0	1
1876	44,207,121	6·6	2·0	1
1877	61,822,292	7·4	1·0	1
1878	78,828,443	6·0	1·0	1
1879	75,089,768	6·8	1·0	1
1880	105,133,009	6·5	1·0	1
1881	56,389,827	4·7	1·0	¾
1882	51,501,503	5·4	1·0	¾
1883	65,722,080	4·9	None.	¾
1884*	58,011,800	4·2	do	¾
1885*	52,671,090	3·8	do	¾
1886*	75,570,850	5·0	do	¾
1887*	87,073,570	4·6	do	¾
1888*	73,977,390	3·4	do	¾
1889*	92,290,550	4·8	do	¾
1890*	91,994,680	3·8	do	¾
1891*	135,315,510	3·5	do	¾
1892*	138,872,560	3·5	do	¾
1893*	140,796,410	4·6	do	¾
1894*	105,435,577	3·2	do	¾
1895*	121,225,497	2·2	do	¾
1896*	172,474,664	3·7	do	¾
1897*	204,964,103	2·8	do	¾
1898*	221,383,945	2·8	do	$\frac{5}{12}$ to nothi'g
1899*	158,393,184	3·0	do	½
1900*	157,655,968	2·5	do	$\frac{5}{12}$
1901	132,646,828	3·5	do	$\frac{5}{12}$

NOTE—Prior to 1870 tolls 6·21 cents per bushel, and the elevating charge 2 cents per bushel.

* Including flax seed.

AVERAGE FREIGHT CHARGES PER BUSHEL.

For the transportation of wheat and corn from Chicago to New York for a series of years.

(From Report of Board of Trade, Chicago.)

	Corn.			Wheat.		
	By lake and canal.	By lake and rail.	By all rail.	By lake and canal.	By lake and rail.	By all rail.
1858	·127	.....	·3619	·1550	.....	·3861
1859	·1570	.....	·3248	·1663	.....	·3480
1860	*a* ·0833	.....	·3248	*a* ·095	.....	·3480
1861	*a* ·1062	.....	·3881	*a* ·1210	.....	·4158
1862	*a* ·0957	.....	·4480	*a* ·1062	.....	·4800
1863	*a* ·063	.....	·4592	*a* ·072	.....	·4920
1864	*a* ·09	.....	·5600	*a* ·0952	.....	·60
1865	*a* ·0864	.....	·4188	*a* ·0894	.....	·4488
1866	*a* ·1075	.....	·4312	*a* ·1377	.....	·4620
1867	*a* ·0511	.....	·4176	*a* ·08	.....	·4475
1868	*a* ·0604	.....	·3532	*a* ·0802	.....	·3784
1869	*a* ·0584	·2355	·3320	*a* ·0651	·2520	·3557
1870	*a* ·16	·2220	·28	*a* ·0677	·2250	·30
1871	*a* ·0754	·2372	·2968	*a* ·0687	·2542	·3180
1872	*a* ·1072	·2660	·3266	*a* ·1110	·2950	·3499
1873	*a* ·0816	·2298	·2893	*a* ·0917	·2461	·3102
1874	*a* ·0382	·1388	·2450	*a* ·0400	·1709	·2625
1875	*a* ·034	·1303	·2240	*a* ·0378	·1389	·2400
1876	*b* ·0875	·1079	·1574	*b* ·0982	·1136	·1686
1877	*b* ·0959	·1406	·1890	*b* ·1109	·1546	·2050
1878	*b* ·0883	·1053	·1652	*b* ·0996	·1209	·1770
1879	*b* ·1049	·1220	·1456	*b* ·1187	·1313	·1774
1880	*b* ·1341	·1443	·1748	*b* ·1313	·1580	·1980
1881	*b* ·0777	·0942	·1340	*b* ·0867	·1049	·1440
1882	*b* ·0672	·1028	·1350	*b* ·0723	·1091	·1447
1883	*b* ·0803	·11	·1512	*b* ·0901	·1163	·1620
1884	*b* ·0655	·085	·1232	*b* ·07	·10	·1320
1885	*b* ·063	·0801	·1232	*b* ·0654	·0902	·1320
1886	*b* ·0845	·1120	·14	*b* ·0910	·12	·1500
1887	*b* ·0850	·1120	·1470	*b* ·0950	·12	·1575
1888	*b* ·0671	·1026	·1354	*b* ·0705	·1114	·1450
1889	*b* ·0632	·0819	·126	*b* ·0692	·0897	·1500
1890	*b* ·0593	·0732	·1136	*b* ·0676	·0852	·1430
1891	*b* ·0632	·0753	·1400	*b* ·0695	·0857	·1500
1892	*b* ·0595	·0721	·1296	*b* ·0645	·0759	·1380
1893	*b* ·0718	·0797	·1365	*b* ·0766	·0848	·1463
1894	*b* ·0493	·0650	·1232	*b* ·0511	·0700	·1320
1895	*b* ·0450	·0640	·1029	*b* ·0486	·0696	·1189
1896	*b* ·0575	·0615	·1050	*b* ·0619	·0661	·1200
1897	*b* ·0453	·0692	·1143	*b* ·0522	·0742	·1250
1898	‡ ·0381	·0441	·0980	‡ ·0445	·0491	·1200
1899	‡ ·0508	·0583	·1008	‡ ·0581	·0663	·1160
1900	‡ ·0407	·0472	·0919	‡ ·0449	·0510	·0996
1901	‡ ·0461	·0516	·0921	‡ ·0511	·0554	·0988

a To Buffalo only. *b* Including Buffalo charges and tolls. ‡ Exclusive of Buffalo charges.

FOREIGN FREIGHT RATES.

ANNUAL average Freight Rates on Grain, Flour and Provisions (per 100 lbs.) from Chicago to European Ports, by all Rail to Sea-board and thence by steamers.

Shipped to	Articles.	1901.	1900.	1899.	1898.	1897.
		$	$		$	$
Liverpool	Grain	·2147	·2498	·2972	·3435	·3360
"	Sacked flour	·2300	·2790	·3012	·3766	·3681
"	Provisions	·3600	·4884	·4050	·4715	·4440
Glasgow	Grain	·2410	·3098	·3235	·3600	·3523
"	Sacked flour	·2438	·3156	·3125	·3906	·3906
"	Provisions	·4516	·5531	·4469	·5250	·5250
London	Grain	·2323	·3110	·3060	·3500	·3400
"	Sacked flour	·2550	·3501	·3350	·3725	·3612
"	Provisions	·4475	·5587	·4414	·4969	·4814
Antwerp	"	·4625	·5109	·4750	·5250	·5109
Hamburg	"	·4400	·5000	·4600	·5200	·5100
Amsterdam	"	·4500	·5100	·4700	·5250	·5200
Rotterdam	"	·4500	·5100	·4700	·5250	·5200
Copenhagen	"	·4775	·5531	·5172	·5813	·5728
Stockholm	"	·5325	·6450	·6297	·6925	·6853
Stettin	"	·4775	·5531	·5172	·5813	·5728
Bordeaux	"	·5425	·6412	·5912	·6575	·6413

LAKE FREIGHTS ON COAL FROM BUFFALO TO CHICAGO AND OTHER PORTS.

The following statement shows the average freight rate on Coal, per net ton, in cents, from Buffalo to the ports named, during the seasons of 1900 and 1901.

	1901.	1900.
Freight on hard Coal, Buffalo to Chicago, per ton	50·2	48·5
" " " Milwaukee, "	50·2	48·5
" " " Duluth, "	38·4	39·5

TOTAL VALUES of Merchandise Received from British North America for Immediate Transit across United States Territory, for Immediate Transhipment in Ports of the United States to British North America, and so shipped, during each Year from 1873 to 1901 inclusive.

YEAR ENDING JUNE 30.	COUNTRIES FROM WHICH RECEIVED.					COUNTRIES TO WHICH SHIPPED.				
	British North America.					British North America.				
	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the North-west Territories.	British Columbia.	Newfoundland and Labrador.	Total.	Nova Scotia, New Brunswick, and Prince Edward Island.	Quebec, Ontario, Manitoba and the North-west Territories.	British Columbia.	Newfoundland and Labrador.	Total.
	$	$	$	$	$	$	$	$	$	$
1873	495,289	12,894,164	5,240	.....	13,394,693	5,282,290	21,320,174	181,720	.....	26,784,184
1874	449,655	13,616,344	97,691	.....	14,163,690	7,150,036	19,843,169	317,534	.....	27,310,739
1875	443,570	17,342 933	256,074	.....	18,042,577	8,999,596	20,283,639	517,060	.....	29,800,295
1876	261,443	22,134,275	195,047	1,137	22,591,902	9,102,600	14,658,358	658,836	94	24,419,888
1877	160,658	12,092,619	218,418	.....	12,471,695	2,879,422	15,551,238	544,018	2,475	18,977,153
1878	163,978	11,627,114	412,966	.....	12,204,058	951,268	11,436,470	524,013	934	12,912,685
1879	194,129	11,606,832	280,079	55	12,081,095	889,539	11,520,877	476,824	2,347	12,889,587
1880	215,131	16,782,315	137,271	.....	17,134,717	1,643,716	14,866,663	531,436	288	17,042,103
1881	171,383	16,758,108	72,555	.....	17,002,046	1,778,836	20,857,827	719,268	333	23,356,264
1882	164,990	28,265,083	113,018	87	28,543,178	2,732,665	34,005,845	855,784	1,190	37,595,484
1883	561,791	29,204,031	36,973	25	29,802,820	2,455,557	35,878,389	971,307	7,335	39,312,568
1884	656,233	12,574,953	188,041	.....	13,419,227	1,740,900	19,717,466	1,475,833	5,186	22,939,385
1885	933,806	12,280,483	308,691	633	13,523,613	1,635,442	16,448,942	1,615,293	781	19,700,458
1886	1,165,973	9,303,864	359,104	32,079	10,861,020	2,040,298	16,369,429	1,825,178	6,174	20,241,079
1887	1,684,730	9,606,175	213,816	.....	11,504,721	1,621,748	19,930,296	635,841	70	22,187,955
1888	1,525,048	6,417,701	372,934	27,134	8,542,817	1,781,028	13,459,169	370,322	1,137	13,611,656
1889	2,596,233	8,355,178	294,859	89,853	11,336,123	2,484,787	18,993,957	665,527	2,704	22,146,975
1890	3,070,657	12,449,772	306,897	174,584	16,001,910	5,277,210	21,140,198	913,106	4,690	27,335,204
1891	3,859,079	15,310,945	422,806	187,640	19,780,470	5,605,614	21,695,992	547,144	34,273	27,883,023
1892	4,393,062	19,005,704	201,373	328,116	23,928,255	2,079,783	24,189,181	428,188	6,962	26,704,114
1893	1,009,597	16,404,425	89,565	381,986	17,885,573	2,052,357	20,232,400	409,055	26,289	22,720,111
1894	1,070,676	15,649,881	348,069	273,467	17,342,093	1,831,417	17,880,688	463,471	6,640	20,182,216
1895	1,199,782	17,774,108	411,557	236,415	19,621,862	1,834,745	19,320,714	558,991	7,844	21,722,294
1896	1,118,185	18,038,931	582,469	404,020	20,143,605	1,572,783	19,441,279	772,586	1,768	21,788,416
1897	1,118,055	22,497,151	611,322	367,295	24,593,823	1,682,538	17,660,211	1,312,797	8,130	20,663,676
1898	1,440,950	35,596,039	1,744,289	555,706	39,336,984	1,536,413	22,400,622	2,294,356	19,247	26,250,638
1899	1,618,399	30,673,265	3,708,928	561,129	36,561,721	1,215,518	19,605,819	4,686,559	27,147	25,535,043
1900	2,002,264	37,657,936	3,914,668	553,031	44,127,899	1,245,771	27,452,333	2,730,612	49,555	31,478,271
1901	1,788,641	38,382,558	4,070,940	503,970	44,746,109	1,161,875	24,634,780	4,687,000	71,924	30,555,579

TOTAL VALUE of Merchandise received from the Principal and other Foreign Countries for Immediate Transit across United States Territory or for Immediate Transhipment in Ports of the United States to other Foreign Countries, and so shipped, for each Year from 1868 to 1901 inclusive.

Year ending June 30.	COUNTRIES FROM WHICH RECEIVED.						COUNTRIES TO WHICH SHIPPED.						Total Value of Merchandise received and shipped.
	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	Great Britain and Ireland.	Germany.	British North American Possessions.	Mexico.	Cuba.	Other Countries.	
	$	$	$	$	$	$	$	$	$	$	$	$	$
1868....	10,664,576	132,074	4,864,209	14,967	4,263,621	1,576,157	2,025,023	3,212,123	14,375,419	481,643	116,521	1,304,875	21,516,604
1869....	10,891,698	150,382	5,852,678	60,715	2,373,474	1,767,037	2,693,525	1,547,602	15,033,821	448,300	72,875	1,299,861	21,095,984
1870....	10,210,455	302,806	7,215,973	103.977	3,309,227	2,049,422	2,946,053	2.116,249	16,689,037	321,331	135,915	983,275	23,191,860
1871....	13,473,915	322,110	7,954,060	344,179	1,367,573	1,913,200	4,031,319	1 033,307	18,406,475	346,872	345,224	1,211,840	25,375,037
1872....	17,633,231	227,232	9,276,169	174,104	2,227,422	1,847,162	2,743,194	2 263,819	24,042,790	358,151	179,570	1,797,496	31,385,320
1873....	19,144,815	250,704	13,394,693	286,607	5,737,904	1,284,462	5,144 175	5,622,325	26,784,184	235,113	319,771	1,993,617	40,099,185
1874....	18,832,900	211,907	14,163,690	151,920	4,563,869	926,390	5 391 201	3,866,642	27,310,739	665,214	520,493	1,096,387	38,850,676
1875....	18,657,276	325,648	18,042,577	115,527	1,759,308	1,785,947	7,229,912	1,495,285	29,860,295	1,155,004	248,358	757,429	40,686,283
1876....	14,304,197	290,489	22,591,902	226,315	2,962,963	1,686,789	11,791,200	2,958,558	24,419,888	1,129,440	600,061	1,163,508	42,062,655
1877....	13,732,085	337,897	12,471,695	158,852	1,095,451	1,460,793	7,758,501	1,108,298	18,977,153	329,577	306,311	776,933	29,256,773
1878....	10,084,510	378,768	12,204,058	146,822	3,041,957	1,481,033	9,577,050	2,905,230	12,912,685	316,664	319,611	1,305,908	27,337,148
1879....	8,795,340	521,917	12,081,095	222,320	1,954,042	1,521,153	8,175,951	2,252,572	12,889,587	330,968	174,757	1,272,032	25,095,867
1880....	10,311,139	620,704	17,134,747	239,655	3,606,099	1,942,405	10,856,579	3,658,477	17,042,103	300,148	224,848	1,775,594	33,857,749
1881....	14,898,052	721,344	17,002,046	217,444	2,642,550	2,222,122	9,122,079	2,729,246	23,356,264	671,008	177,340	1,648,121	37,704,048
1882....	18,911,637	755,560	28,543,178	380,100	5,662,926	3,812,058	11,592,806	5,336,361	37,595,484	800,025	319,257	2,421,526	58,065,459
1883....	20,242,222	1,149,195	29,802,820	281,309	3,126,069	4,276,712	11,089,865	2,758,994	39,312,568	2,282,473	352,552	3,081,875	58,878,327
1884....	14,038,694	948,901	13,419,227	408,124	3,655,568	4,345,878	5,288,389	2,960,488	22,939,385	2,748,434	221,061	2,656,635	36,814,392
1885....	11,064,186	1,140,548	13,523,613	308,293	4,853,354	3,545,544	7,235,519	3,771,524	19,700,458	1,262,515	119,376	2,346,146	34,435,538
1886....	13,142,644	1,462,414	10,861,020	216,078	6,797,879	4,558,229	8,510,097	3,803,566	20,241,079	1,279,399	452,700	2,751,423	37,038,264
1887....	17,977,200	1,670,952	11,504,721	111,635	6,780,853	4,720,760	10,052,219	4,353,992	22,187,955	2,002,476	608,121	3,561,358	42,766,121
1888....	13,707,240	1,817,511	8,342,817	120,497	4,820,846	4,534,298	6,853,195	2,551,043	15,611,656	3,766,180	563,539	3,997,596	33,343,209
1889....	19,080,647	2,582,456	11,336,123	296,654	9,054,736	5,052,610	9,233,659	4,581,061	22,146,975	4,781,110	892,158	5,768,287	47,403,253
1890....	20,664,427	2,735,546	16,002,384	639,050	9,759,256	5,898,763	10,656,465	5,097,434	27,335,678	4,944,149	1,215,399	6,450,301	55,699,426
1891....	20,879,851	2,819,238	19,780,470	565,338	6,977,901	6,475,119	11,968,808	3,640,940	27,883,023	5,052,318	966,851	7,985,977	57,497,917
1892....	21,334,783	2,930,571	23,928,255	1,383,455	11,054,445	8,936,228	20,141,862	6,995,419	26,704,114	4,953,911	1,472,980	9,299,451	69,567,737
1893....	20,387,339	3,466,885	17,885,573	1,652,200	10,131,171	14,426,669	18,511,287	7,986,637	22,720,111	4,607,549	2,034,761	12,089,492	67,949,837
1894....	19,641,622	3,717,740	17,342,093	1,858,367	9,916,742	19,031,011	18,394,865	11,154,933	20,182,216	4,543,455	2,586,919	16,645,187	71,507,575
1895....	18,531,083	4,122,899	19,621,862	2,515,091	10,420,277	10,465,981	20,562,325	6,684,735	21,722,294	4,512,293	1,951,985	10,243,561	65,677,193
1896....	19,420,751	3,460,489	20,143,605	1,797,161	11,668,243	13,272,521	20,022,263	7,942,844	21,788,416	5,210,607	1,890,705	12,907,932	69,762,770
1897....	17,513,324	3,183,390	24,593,823	1,903,924	9,589,820	13,275.822	24,809,259	5,333,860	20,663,676	5,320,563	2,058,454	11,874,291	70,060,103
1898....	18,931,226	3,775,038	39,336,984	2,625,521	4,763,587	11,587,069	33,276,696	3,807,811	26,250,638	5,543,843	1,728,780	10,411,607	81,019,375
1899....	16 594,043	4,069,828	36,561,721	3,519,942	8,372,450	10,910,462	29,695,600	5,711,338	25,535,043	5,669,214	2,760,086	10,657,165	80,028,446
1900....	23,152,099	3,915,766	44,127,899	4,245,695	9,316,066	13,793,937	37,383,450	6,488,502	31,478,271	6,965,660	3,484,521	12,751,058	98,551,462
1901....	21,771,394	4,681,613	44,746,109	4,659,259	15,680,902	14,821,842	37,506,242	14,204,010	30,555,579	8,110,116	3,577,929	12,407,243	106,361,119

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, in American vessels and in foreign vessels during each Fiscal Year, from 1857 to 1901 inclusive, with the percentage carried in American vessels (coin and bullion are included from 1857 to 1879 inclusive), as method of transportation of specie and merchandise cannot be separately stated.

Year ending June 30.	Imports.			Exports.			Imports and Exports.				Percentage carried in American vessels.
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	Total.	
	$	$	$	$	$	$	$	$	$	$	
1857	.....	259,116,170	101,773,971	.....	251,214,857	111,745,825	.....	510,331,027	213,519,796	723,850,823	70·5
1858	.....	203,700,016	78,913,134	.....	243,491,288	81,153,133	.....	447,191,304	160,066,267	607,257,571	73·7
1859	.....	216,123,428	122,644,702	.....	249,617,953	107,171,509	.....	465,741,381	229,816,211	695,557,592	66·9
1860	.....	228,164,855	134,001,399	.....	279,082,902	121,039,394	.....	507,247,757	255,040,793	762,288,550	66·5
1861	.....	201,544,055	134,106,098	.....	179,972,733	69,372,180	.....	381,516,788	203,478,278	584,995,066	65·2
1862	.....	92,274,100	113,497,629	.....	125,421,318	104,517,667	.....	217,695,418	218,015,296	435,710,714	50·0
1863	.....	109,744,580	143,175,340	.....	132,127,891	199,880,691	.....	241,872,471	343,056,031	584,928,502	41·4
1864	.....	81,212,077	248,350,818	.....	102,849,409	237,442,730	.....	184,061,486	485,793,548	669,855,034	27·5
1865	.....	74,385,116	174,170,336	.....	93,017,756	262,839,588	.....	167,402,872	437,010,124	604,412,996	27·7
1866	.....	112,040,395	333,471,763	.....	213,671,466	351,754,928	.....	325,711,861	685,226,691	1,010,938,552	32·2
1867	.....	117,209,536	300,622,035	.....	180,625,368	280,708,368	.....	297,834,904	581,330,403	879,165,307	33·9
1868	.....	122,965,225	248,659,583	.....	175,106,348	301,886,491	.....	297,981,573	550,546,074	848,527,647	35·1
1869	.....	136,802,024	300,512,231	.....	153,154,748	285,979,781	.....	289,956,772	586,492,012	876,448,784	33·1
1870	.....	153,237,077	309,140,510	.....	199,732,324	329,786,978	.....	352,969,401	638,927,488	991,896,889	35·6
1871	15,187,354	163,285,710	363,020,644	7,798,156	190,378,462	392,801,932	22,985,510	353,664,172	755,822,576	1,132,472,258	31·2
1872	17,635,681	177,286,302	445,416,783	10,015,089	168,044,799	393,929,579	27,650,770	345,341,101	839,346,362	1,212,328,233	28·5
1873	17,070,548	174,739,834	471,806,765	10,799,430	171,566,758	494,915,886	27,869,978	346,306,592	966,723,651	1,340,899,221	25·8
1874	14,513,335	176,027,778	405,320,135	8,509,205	174,421,216	533,885,971	23,022,540	350,451,994	939,206,106	1,312,680,640	26·7
1875	13,083,859	157,872,726	382,949,568	7,304,356	156,385,066	501,838,949	20,388,235	314,257,792	884,788,517	1,119,434,544	25·8
1876	12,148,667	143,389,704	321,139,500	6,324,487	167,686,467	492,215,487	18,473,154	311,076,171	813,354,987	1,142,904,312	27·2
1877	10,697,640	151,834,067	329,565,833	6,767,170	164,826,214	530,354,703	17,464,810	316,660,281	859,920,536	1,194,045,627	26·5
1878	12,965,999	146,499,282	307,407,565	7,511,365	166,551,624	569,583,564	20,477,364	313,050,906	876,991,129	1,210,519,399	25·9
1879	11,983,823	143,590,353	310,499,599	7,439,862	128,425,339	600,769,633	19,423,685	272,015,692	911,269,232	1,202,708,609	22·6
1880	15,142,465	149,317,368	503,494,913	5,838,928	109,029,209	720,770,521	20,981,393	258,346,577	1,224,265,434	1,503,593,404	17·18
1881	17,193,213	133,631,146	491,840,269	8,259,308	116,955,324	777,162,714	25,452,521	250,586,470	1,269,002,983	1,545,041,974	16·22
1882	22,854,946	130,266,826	571,517,802	12,118,371	96,962,919	641,460,967	34,973,317	227,229,745	1,212,978,769	1,475,181,831	15·40
1883	23,003,048	136,002,290	564,175,576	25,089,844	104,418,210	694,331,348	48,092,892	240,420,500	1,258,506,024	1,547,020,316	15·54
1884	20,140,294	135,046,207	512,511,192	26,573,774	98,652,828	615,287,007	46,714,068	233,699,035	1,127,798,199	1,408,211,302	16·60
1885	21,149,476	112,864,052	443,513,801	24,183,299	82,001,691	636,004,765	45,332,775	194,865,743	1,079,518,566	1,319,717,084	14·76
1886	24,555,683	118,942,817	491,937,636	19,144,667	78,406,680	581,973,477	43,700,350	197,349,503	1,073,911,113	1,314,960,966	15·01
1887	27,562,059	121,365,493	543,392,216	21,389,666	72,991,253	621,802,292	48,951,725	194,356,746	1,165,194,508	1,408,502,979	13·80

VALUE of the Imports and Exports of the United States carried respectively in cars and other land vehicles, &c.—*Concluded.*

Year ending June 30.	IMPORTS.			EXPORTS.			IMPORTS AND EXPORTS.				Percentage carried in American vessels.
	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	In cars and other land vehicles	In American vessels.	In Foreign vessels.	Total.	
	$	$	$	$	$	$	$	$	$	$	
1888	32,209,459	123,525,298	568,222,357	22,147,368	67,332,175	606,474,964	54,356,827	190,857,473	1,174,697,321	1,419,911,621	13·44
1889	38,227,861	120,782,910	586,120,881	28,436,517	83,022,198	630,942,660	66,664,378	203,805,108	1,217,063,541	1,487,533,027	13·70
1890	40,621,361	124,948,948	623,740,100	32,949,902	77,562,138	747,376,644	73,576,263	202,451,086	1,371,116,744	1,647,139,093	12·29
1891	40,932,755	127,471,678	676,511,763	31,923,439	78,968,047	773,589,324	72,856,194	206,439,725	1,450,101,087	1,729,397,006	11·94
1892	39,726,595	139,139,891	648,535,976	33,220,629	81,033,844	916,023,675	72,947,224	220,173,735	1,564,559,651	1,857,680,610	11·85
1893	44,121,094	127,095,434	695,184,394	43,862,947	70,670,073	733,132,174	87,984,041	197,765,507	1,428,316,568	1,714,066,116	12·2
1894	29,623,095	121,561,193	503,810,334	49,221,427	73,707,023	769,212,122	78,844,522	195,268,216	1,273,022,456	1,547,135,194	13·3
1895	33,201,988	108,229,615	590,538,362	49,902,754	62,277,581	695,357,830	83,104,742	170,507,196	1,285,896,192	1,589,508,130	11·7
1896	35,535,079	117,293,074	626,890,521	61,131,125	70,392,813	751,083,000	96,666,204	187,691,887	1,377,973,521	1,662,331,612	12·00
1897	35 812,620	109,133,454	619,784,338	65,082,305	79,441,823	905,969,428	100,894,925	189,075,277	1,525,753,766	1,815,723,968	11·00
1898	30,427,784	93,535,867	492,086,003	73,283,704	67,792,150	1,090,406,476	103,711,488	161,328,017	1,582,492,479	1,847,531,984	9·30
1899	33,424,821	82,050,118	581,673,550	83,870,907	78,562,088	1,064,590,307	117,295,728	160,612,206	1,646,263,857	1,924,171,791	8·9
1900	44,412,509	104,304,940	701,223,735	110,483,141	90,779,252	1,193,220,689	154,895,650	195,084,192	1,894,444,424	2,244,424,266	9·3
1901	47,100,814	93,055,493	683,015,858	111,900,931	84,343,122	1,291,520,938	159,001,745	177,398,615	1,974,536,796	2,310,937,156	8·2

NOTES.—1. The amounts carried in cars and other land vehicles, were not separately stated prior to July 1, 1870. 2. Exports are stated in mixed gold and currency values from 1862 to 1879, inclusive.

SESSIONAL PAPER No. 20

STATEMENT showing the Total Values of Foreign Merchandise transported in the In-Transit and Transhipment Trade of the United States with the British North American Possessions during each Year from 1871 to 1901.

Year ending June 30.	Received for transit and transhipment from British North American Possessions.			Shipped in transit to or transhipment for British North American Possessions.		
	By Land.	By Water.	Total.	By Land.	By Water.	Total.
	$	$	$	$	$	$
1871	6,035,585	1,918,475	7,954,060	15,624,591	2,781,884	18,406,475
1872	8,237,859	1,038,310	9,276,169	19,357,342	4,685,448	24,042,790
1873	11,700,787	1,693,906	13,394,693	20,178,666	6,605,518	26,784,184
1874	12,695,590	1,468,100	14,163,690	20,572 299	6,938,430	27,510,739
1875	16,890,022	1,152,555	18,042,577	23,794,129	6,006,166	29,800,295
1876	21,301,262	1,290,640	22,591,902	19,369,958	5,049,930	24,419,888
1877	10,835,642	1,636,053	12,471,695	17,066,855	1,910,298	18,977,153
1878	10,314,534	1,889,524	12,204,058	11,914,321	998,364	12,912,685
1879	10,098,998	1,982,097	12,081,095	12,030,635	858,952	12,889,587
1880	15,265,177	1,869,570	17,134,747	16,388,673	653,430	17,042,003
1881	15,200,967	1,801,079	17,002,046	22,828,270	527,994	23,356,264
1882	24,665,029	3,878,149	28,543,178	36,613,465	982,019	37,595,484
1883	26,382,370	3,420,450	29,802,820	38,389,318	923,250	39,312,568
1884	13,043,498	375,729	13,419,227	22,120,587	818,798	22,939,385
1885	12,755,686	767,927	13,523,613	19,105,476	594,982	19,700,458
1886	9,593,344	1,267,676	10,861,020	19,428,867	812,212	20,241,079
1887	9,377,041	2,127,680	11,504,721	20,178,365	2,009,590	22,187,955
1888	6,309,024	2,033,793	8,342,817	13,347,876	2,063,780	15,611,656
1889	8,303,171	3,032,952	11,336,123	19,299,966	2,849,263	22,149,229
1890	13,524,298	2,477,612	16,001,910	24,788,152	2,547,052	27,335,201
1891	18,065,925	1,714,545	19,780,470	25,185,706	2,697,317	27,883,023
1892	21,346,413	2,581,842	23,928,255	23,989,746	2,714,368	26,704,114
1893	13,807,662	4,077,911	17,885,573	20,151,432	2,568,679	22,720,111
1894	13,501,664	3,840,429	17,342,093	17,974,332	2,207,884	20,182,216
1895	14,068,922	5,552,940	19,621,862	18,752,226	2,970,068	21,722,294
1896	13,408,578	6,735 027	20,143,605	18,335,373	3,453,043	21,788,416
1897	17,665,422	6,928,401	24,593,823	18,430,841	2,232,835	20 663,676
1898	27,277,049	12,059,935	39,336,984	22,792,971	3,457,667	26,250,638
1899	28,248,759	8,312,962	36,561,721	22,593,761	2,941,282	25,535,043
1900	33,346,150	10,781,749	44,127,899	27,996,981	3,481,290	31,478,271
1901	37,680,071	7,066,038	44,746,109	27,899,903	2,655,676	30,555,579

NOTE.—This movement forms no part of the import and export trade.

C.—Table showing the Tonnage of the undermentioned Articles moved

Years.	Vegetable Food.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Vegetable Food.*
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869	71,051	670,534	256,475	99,012	92,309	13,489	99,743
1870	54,978	658,524	193,129	123,191	117,941	19,520	127,727
1871	41,211	748,549	672,057	113,992	129,891	34,563	109,935
1872	20,534	403,903	902,753	120,061	92,959	13,357	120,753
1873	19,307	803,064	637,296	70,586	70,023	30,160	114,735
1874	29,134	772,163	519,203	98,654	59,408	8,215	280,821
1875	17,635	744,293	282,031	104,475	62,717	8,309	86,090
1876	9,290	416,376	365,254	96,494	52,147	19,949	104,783
1877	8,923	448,043	723,458	139,453	66,045	35,948	77,114
1878	5,904	844,555	734,993	89,534	85,029	64,613	88,106
1879	7,164	949,466	621,180	96,144	23,164	59,210	77,071
1880	8,266	966,052	1,156,619	106,247	20,893	26,340	86,673
1881	6,926	444,832	475,823	81,587	30,321	15,484	61,588
1882	9,372	642,215	251,687	96,650	22,180	43,372	53,300
1883	9,047	573,740	522,978	58,787	51,607	95,246	67,595
1884	7,251	790,409	198,216	65,008	52,696	71,462	51,944
1885	6,869	565,922	359,982	64,587	8,234	10,211	47,505
1886	9,005	993,129	354,765	62,854	7,278	3,073	59,782
1887	4,089	936,840	446,617	75,458	35,365	6,717	47,678
1888	3,287	491,419	499,218	41,100	70,315	12,532	49,087
1889	4,429	484,141	592,550	66,110	63,674	36,329	49,663
1890	3,489	353,738	616,702	90,754	48,438	21,657	33,123
1891	3,126	756,101	142,141	71,903	16,362	68,771	33,951
1892	4,879	620,768	150,269	51,596	72,444	4,236	33,807
1893	2,367	1,093,927	252,283	49,651	24,714	6,518	20,656
1894	2,909	903,361	275,377	89,700	100,874	5,288	22,620
1895	2,240	280,550	94,403	77,868	87,839	205	59,400
1896	7,963	408,872	100,227	109,967	197,713	77,210	55,230
1897	3,206	180,035	312,776	100,337	50,345	66,387	31,489
1898	1,854	69,986	364,248	89,906	76,244	7,745	43,044
1899	1,247	282,422	92,670	78,627	93,733	5,931	22,856
1900	1,171	138,302	189,013	63,204	36,435	10,478	34,254
1901	747	214,854	87,392	55,502	88,521	10,326	99,757

* Apples, meal, all kinds, pease, potatoes.

on all Canals in the State of New York, during a series of thirty-three years.

	Heavy Goods.					
Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1,302,613	137,677	79,652	263,333	1,324,408	183,992	1,989,062
1,295,010	135,930	89.708	266.740	1,558,185	238,802	2,289,365
1,850,198	178,269	100,310	248,709	1,194,037	289,952	2.011.277
1,674.320	161,667	96,996	248,558	1,462,590	377,592	2,347,403
1,745,171	53.363	62.581	216,706	1.625,859	415.968	2,374,477
1,767,598	24,511	82,955	173,590	1,413,162	232,544	1,926,762
1,305,550	36,603	95.305	186,785	1.217,091	283,219	1,819,003
1,064.293	11,691	69,450	114,070	1,036,698	173,530	1,405,439
1,498,984	10,341	58,828	156,918	1,286,881	250,573	1,763,541
1,912.734	8,385	65,642	139,927	889.873	210.078	1,313,905
1,833,399	27,634	99,568	136,021	971,074	314,411	1,548,708
2,371,090	93,613	139,993	144,487	959.342	370,884	1,709,319
1,116.561	78,650	205,005	113,756	1,092,003	337,873	1,827,287
1,118.776	58,921	122,786	108,040	1,228,435	364,361	1,882,543
1,379,000	46,553	47,412	190,392	1,152,849	293,892	1,731,098
1,236,986	28,513	54,471	161,788	954,288	210.610	1,400,670
1,063,310	12,215	38,726	161,272	1,025.941	195,750	1,433,904
1,489,886	10,878	152,030	112,002	857.884	269.914	1,402,708
1,552,764	21,368	224,979	124,054	905,424	243,578	1,539,403
1,166,958	2,596	43,881	106,344	1,219,680	259,269	1,631,770
1,296,896	3,278	78,135	112,100	1,094.897	234.948	1,523,358
1,167,901	5,800	26,804	93,181	830,154	202,072	1,157,291
1,092.355	1,960	36,770	81,232	881,502	215,686	1,217,150
937,999	524	40,073	93,216	832,397	136,612	1,102,822
1,450,116	536	25,204	52,094	741,934	102,275	922,043
1,400,129	267	22,614	70.353	609.368	37,641	740,243
602.505	4,263	59,402	71,334	766,723	144,076	1,045,798
957,182	1,568	74,651	33.309	682,167	89,998	931,693
744,575	5,080	71,117	66,879	646,803	76,311	866,190
653,027	6,288	101,216	85,525	626,616	73,199	892,844
577,486	2,725	69,106	91,068	777,743	205,234	1,145,876
472.857	833	49.036	88,635	809,187	103,514	1,051,205
557,099	7.9	30,110	100.080	774 538	90,656	996,093

D.—TABLE showing the total Tonnage of the undermentioned Articles moved Up and Down

Year.	Vegetable Food.						
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	45,674	313,825	120,599	20,951	.....	904	1,937
1872	26,651	239,998	254,902	6,035	7,752	64	2,745
1873	30,665	355,847	180,169	8,225	1,194	3	3,777
1874	24,019	413,212	181,151	18,871	5,954	513	8,677
1875	13,964	253,835	103,749	35,751	3,383	917	6,337
1876	15,778	201,906	144,501	18,455	24,496	1,454	3,198
1877	13,558	253,953	169,196	19,870	2,810	2,439	2,355
1878	9,121	191,982	185,931	10,979	3,088	.....	2,302
1879	10,710	274,570	144,506	4,655	1,239	440	2,444
1880	12,679	242,020	163,738	17,772	477	1,016	1,480
1881	9,959	127,832	101,075	24,509	.....	1,844	2,086
1882	12,261	215,056	54,799	20,126	611	3,226	403
1883	13,471	152,794	182,269	10,436	731	1,642	10,983
1884	13,683	144,851	118,811	7,155	10,746	1,320	9,168
1885	13,334	124,206	117,536	15,801	1,116	.....	1,912
1886	19,474	154,169	219,442	1,595	4,911	564	14,657
1887	23,949	221,927	114,938	9,574	12,050	.....	12,533
1888	16,983	160,963	194,886	5,906	26,629	811	13,608
1889	7,931	126,664	353,595	4,272	28,356	2,673	18,552
1890	14,461	118,002	327,394	10,830	27,728	1,549	20,876
1891	13,517	198,658	185,180	8,113	52,959	65,888	28,042
1892	17,046	232,019	192,548	6,433	37,173	9,392	32,815
1893	15,235	258,392	441,092	18,599	31,283	3,671	36,981
1894	33,628	270,993	169,233	28,353	27,962	567	60,673
1895	44,044	203,088	164,894	8,689	18,236	1,007	46,463
1896	42,425	320,563	320,444	11,368	28,178	9,405	56,591
1897	9,065	324,743	390,615	14,173	25,161	8,483	44,674
1898	5,578	207,647	437,861	12,286	17,502	16,127	23,182
1899	11,625	197,732	204,004	2,907	24,037	923	18,460
1900	10,968	137,800	163,509	4,035	41,055	3,538	14,815
1901	18,978	151,586	67,756	7,119	28,485	2,961	14,024

* Fiscal. † Apples, meal, all kinds, pease, potatoes.

through the Welland Canal, during a period of thirty-one years, ended Dec. 31, 1901.

	Heavy Goods.						
Total.	Railway Iron.	Other Iron.	Salt.	Iron and salt having paid full tolls on St. Lawrence Canals.	Coal.	Ores.	Total.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
503,860	68,064	16,924	91,575	37,153	103,126	58,781	275,623
538,147	26,217	17,141	50,540	44,243	186,932	98,605	3,678
579,880	6,923	20,754	40,850	17,157	339,016	118,685	543,387
647,397	6,032	12,068	23,309	9,579	323,503	56,825	431,316
417,936	1,517	7,588	13,509	9,962	321,306	43,683	397,565
409,788	51	7,997	30,300	20,327	288,211	81,654	378,540
464,181	9,630	9,696	9,173	3,983	323,869	42,758	399,109
403,403	10	11,518	3,980	12,686	295,318	15,229	338,741
438,561	2,782	5,797	7,174	17,796	192,957	19,164	245,670
442,182	5,360	4,812	413	22,273	109,986	34,139	176,983
269,395	4,585	7,013	10	30,682	128,113	18,785	189,188
306,482	....	5,348	50	17,327	237,559	23,700	283,984
373,326	1,237	7,922	66	17,037	307,058	31,785	365,105
305,734	698	652	461	3,242	274,471	53,205	332,729
273,905	78	2,055	597	14,243	248,272	26,728	291,973
414,812	166	6,123	48	12,324	271,356	27,447	317,464
394,971	1,351	5,636	.....	6,715	145,193	13,866	172,761
419,786	93	3,220	316	13,617	223,871	16,872	257,989
542,043	47	2,479	1,254	20,269	268,305	2,435	294,789
519,291	....	753	1,027	28,047	202,384	8,138	240,349
367,177	127	1,610	2,567	7,953	224,644	3,415	240,316
527,426	163	1,567	878	3,666	211,616	355	218,245
805,253	6	2,075	374	8,139	233,096	... .	243,690
591,409	.....	3,072	159	977	203,608	.....	207,816
486,421	185	6,245	54	2,819	158,866	1,140	169,309
788,974	1,192	6,332	82	3,264	223,445	1,158	235,473
816,914	7,206	17,012	227	590	176,226	.. ..	201,261
720,183	1,444	11,722	799	734	162,336	13,433	190,468
459,688	567	6,361	1,282	1,318	97,732	26,125	133,385
375,720	... .	8,190	533	4,800	47,392	58,400	119,315
290,909	83	6,094	327	8,773	49,480	99,487	164,244

E.—Table showing the tonnages of the undermentioned Articles Cleared at Buffalo and Tonawanda, for transit through the Erie Canal, for a series of thirty-three years.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles *	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869	5,609	490,904	219,874	1,978	63,728	2,150	2,193	786,436		
1870	8,258	502,158	165,577	19,944	89,156	10,593	6,906	802,592	2·05	
1871	5,607	570,849	579,709	19,810	106,391	27,622	5,705	1,315,693	67·59	
1872		330,032	866,169	41,515	73,572	5,900	88	1,317,276	67·50	
1873	6	737,167	611,675	8,636	51,615	22,441	634	1,432,174	82·10	
1874		650,161	459,728	3,192	44,079	112	237	1,157,509	47·18	
1875	5,859	695,315	273,006	1,156	36,609	2,242	3,372	1,017,559	29·38	
1876	231	377,317	356,064	6,334	24,488	12,205	4,691	783,331		0·39
1877	1,710	398,416	709,723	26,351	52,559	27,365	4,976	1,223,100	55·52	
1878	987	775,953	718,714	21,665	69,256	51,064	6,662	1,644,301	109·08	
1879	1,239	892,404	602,171	7,193	14,537	40,471	7,528	1,565,543	99·07	
1880	2,743	897,603	131,857	434	16,154	12,137	4,256	2,065,184	162·06	
1881	1,491	386,605	458,318	86	24,751	107	7,484	878,842	11·75	
1882	1,123	586,019	241,406	1,858	9,046	19,158	6,216	864,826	9·96	
1883	538	535,150	517,219	6,816	47,190	79,010	6,051	1,191,974	51·06	
1884	520	767,784	194,368	4,919	47,060	57,856	4,411	1,078,909	37·18	
1885	323	540,533	356,737	3,317	5,610	6,405	5,427	918,352	14·36	
1886	488	955,851	351,272	6,799	5,180		4,001	1,353,591	72·11	
1887	334	914,152	438,069	15,207	32,907	4,612	44,693	1,449,984	85·64	
1888	534	469,965	494,110	6,589	68,922	10,997	1,717	1,052,834	33·87	
1889	845	457,922	579,526	16,380	61,175	34,167	5,160	1,155,175	46·88	
1890	195	329,531	498,641	58,563	45,202	16,903	4,362	953,397	21·23	
1891	1,071	733,967	137,679	43,779	14,803	66,278	2,594	1,000,171	27·18	
1892	2,485	611,177	141,506	37,570	70,363	3,997	3,472	870,570	10·69	
1893	424	1,086,834	240,767	38,986	21,981	6,156	243	1,395,391	77·43	
1894	327	887,908	265,947	69,707	99,898	5,191	2,123	1,331,101	69·26	
1895	98	271,957	83,611	71,185	85,507	205	15	508,596		35·32
1896	6,971	402,114	89,726	101,151	194,442	77,162	5,575	877,144	11·53	
1897	1,665	168,870	303,761	88,293	48,591	65,490	11,965	688,635		12 44
1898		64,760	354,917	85,359	74,336	7,367	20,818	607,557		22·74
1899		271,848	84,370	72,892	92,919	5,839		527,868		32 89
1900	620	129,683	184,996	53,472	33,564	10,478	25,621	438,434		44·11
1901	3	211,317	86,240	45,624	87,357	10,326	32,862	473,729		39·76

* Apples, meals, all kinds, pease, potatoes.

SESSIONAL PAPER No. 20

STATEMENT to Table E showing the shipment at Oswego during the same period.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles *	Total.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
1869	7,361	141,360	28,585	66,794	1,113	8,569	14,033	267,815	..	.. ..
1870	11,440	115,732	10,120	77,906	3,953	7,402	11,628	238,181	...	11·06
1871	10,043	123,173	70,218	72,675	1,806	6,250	13,259	297,424	11·05	.....
1872	4,773	57,865	27,148	62,172	684	6,751	10,425	169,818	.. .	36·59
1873	4,061	53,361	10,578	46,337	670	6,019	10,738	131,765	.....	50·80
1874	.....	108,288	46,127	77,007	1,103	7,053	3,747	243,325	.....	9·14
1875	1,728	32,690	3,034	75,083	3,308	4,989	5,931	126,763	.....	52·67
1876	967	21,890	1,324	63,336	117	5,703	6,638	99,975	....	62·67
1877	855	28,955	3,308	80,306	316	6,603	6,556	126,899	.....	52·61
1878	1,394	24,171	1,383	50,381	.....	10,598	5,222	93,149	.. ...	65·21
1879	734	25,740	9,268	71,693	....	16,623	3,110	127,168	.....	52·51
1880	951	17,466	15,656	82,743	.....	12,598	5,996	135,410	.....	49·43
1881	758	25,352	8,064	62,793	206	14,444	4,027	115,638	.....	56·82
1882	813	20,274	4,401	70,862	416	22,265	7,773	126,804	.....	52·65
1883	432	22,634	535	32,557	.....	14,384	1,967	72,507	.....	73·09
1884	404	5,932	413	48,391	.....	12,173	2,819	70,132	.....	73·43
1885	519	6,484	22	45,264	.....	4,613	2,945	59,847	....	77·62
1886	737	9,579	154	42,261	.....	1,671	4,814	59,216	. ..	77·88
1887	790	675	2	44,580	.. ...	716	1,370	48,133	.....	82·02
1888	384	2,206	168	6,237	....		2,196	11,191	.....	95·82
1889	473	8,002	8,950	40,096	16	1,405	1,003	59,945	. ....	77·61
1890	545	10,378	10,408	26,639	8	4,635	2,356	54,969	.....	79·47
1891	292	4,298	1,652	27,418	.....	2,130	3,620	39,410	....	85·28
1892	273	4,866	5,657	5,283	.. . ..	199	2,340	18,558	....	93·07
1893	119	2,036	3,968	8,476	.....	237	2,784	17,620	.....	93·43
1894	8	10,293	10,514	17,160	....	.....	2,609	40,584	.....	84·84
1895	66	3,073	7,352	1,900	1,816	.....	258	14,465	.....	94·23
1896	.....	1,825	7,778	7,552	.....	.....	2,468	19,623	...	93·01
1897	.....	6,588	5,550	7,349	498	219	245	20,449	.....	92·37
1898	160	2,111	5,886	1,450	16	.....	784	10,407	....	96·12
1899	216	3,106	4,478	2,400	.....	.....	2,346	12,546	. ..	94·61
1900	214	485	1,401	2,400	... .	.....	403	4,906	.....	98·54
1901	245	526	..... .	5,375	.....	.....	120	6,266	.....	97·67

* Apples, meal, all kinds, potatoes.

F.—TABLE showing the Total Way and Through Tonnage of the undermentioned Articles cleared downward on the Welland Canal, during a series of thirty-one years, ended December 31, 1901.

VEGETABLE FOOD.

Year.	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles. †	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	44,110	310,090	119,541	3,920	.....	680	1,541	479,882
1872	26,648	231,056	254,534	693	7,594	64	2,300	524,889
1873	30,660	345,720	180,042	643	1,188	3	3,557	563,813
1874	24,017	406,157	181,128	377	5,953	.....	3,301	620,933
1875	13,930	248,555	103,477	813	3,383	500	4,304	374,962
1876	15,735	194,559	144,501	1,110	24,496	1,454	2,949	384,807
1877	13,588	248,894	169,185	10,216	2,810	2,405	1,833	448,931
1878	8,854	188,106	185,931	1,217	3,088	....	2,100	389,296
1879	10,588	271,545	114,276	803	1,196	.....	2,387	430,795
1880	12,467	240,601	162,891	... .	477	... .	1,418	417,853
1881	9,655	121,393	103,075	252	.. . .	6	1,371	235,752
1882	12,205	205,876	54,797	537	....	1,954	225	275,594
1883	13,256	146,741	182,143	975	731	518	10,971	355,335
1884	13,626	135,804	118,811	270	10,746	477	9,018	288,752
1885	13,322	114,090	117,536	618	1,116	.....	1,628	248,310
1886	19,418	146,151	218,897	. ....	4,891	.....	14,581	403,923
1887	23,940	210,755	114,938	1,711	12,050	....	12,149	375,543
1888	16,973	150,833	194,886	555	26,629	811	13,358	404,045
1889	7,922	120,498	353,595	197	28,356	1,918	18,273	530,759
1890	14,461	114,924	327,394	6,519	27,728	1,121	20,836	512,983
1891	13,517	196,326	185,177	8,113	52,959	65,071	27,895	549,058
1892	17,046	229,569	192,548	6,433	37,173	9,392	32,548	524,709
1893	15,232	257,203	441,092	18,461	31,283	3,671	36,981	803,923
1894	33,628	270,514	169,233	28,353	27,962	.....	60,587	590,277
1895	43,895	202,636	164,894	8,689	18,236	... .	46,435	484,785
1896	42,159	319,388	320,444	11,368	28,178	8,970	54,031	784,538
1897	9,025	322,993	390,615	14,173	25,127	8,483	44,651	815,067
1898	5,578	206,313	437,849	12,286	17,491	16,127	23,170	718,814
1899	11,625	197,732	204,004	2,424	23,541	923	18,440	458,689
1900	10,968	137,800	163,509	3,449	40,256	3,538	14,802	374,322
1901	18,937	151,325	67,756	7,119	28,281	2,961	14,021	290,460

* Fiscal. † Apples, meal, all kinds, pease, potatoes.

G.—Table showing the Tonnage of the undermentioned Articles passed through the Welland Canal in transit between Ports in the United States during a series of Thirty Years, ended December 31, 1900.

Year.	Vegetable Food.								Heavy Goods.					
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Other Articles.	Total.	Railway Iron.	Other Iron.	Salt.	Coal.	Ores.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869	30,681	211,085	91,149	2,912	.....	667	1,006	337,530	68,064	14,334	89,086	28,566	35,912	235,962
1872	10,482	124,695	89,761	1,391	7,400	.....	608	234,337	24,040	13,239	49,843	95,741	59,401	242,264
1873	10,805	127,727	101,329	1,920	1,188	3	592	243,366	4,659	13,826	40,507	170,242	62,942	292,176
1874	8,230	229,053	125,627	.....	5,948	.....	5,368	374,226	5,742	8,941	22,888	203,673	19,651	260,895
1875	1,881	113,832	54,188	2,641	2,946	500	1,920	177,908	14	4,123	12,931	192,767	34,616	244,451
1876	5,187	96,247	58,138	.....	1,905	525	403	162,405	.....	5,531	29,395	167,110	25,808	227,844
1877	3,342	107,396	65,260	1,603	2,314	258	413	180,586	8,976	8,688	8,336	172,868	41,107	239,975
1878	1,316	65,542	60,026	859	277	.....	341	128,361	.....	10,713	3,892	150,583	13,535	178,723
1879	159	53,791	33,401	.....	464	.....	11	87,826	2,405	3,648	6,318	118,573	17,797	148,741
1880	.....	30,611	16,122	1,551	296	.....	....	48,580	4,743	3,515	371	65,945	18,380	92,954
1881	.....	34,320	30,031	224	.....	.....	10	65,285	1,313	5,570	.....	83,858	6,464	97,205
1882	107	30,227	32,433	537	.....	684	14	64,002	.....	4,076	.....	158,552	14,533	177,161
1883	2,041	54,382	66,128	735	731	.....	8,579	132,496	1,209	6,901	8	196,462	24,891	229,471
1884	1,715	40,956	53,707	.....	9,874	.....	8,170	114,422	698	599	.....	210,790	15,100	227,187
1885	124	53,235	63,229	732	882	.....	1	118,203	.....	1,594	.....	198,416	15,029	215,039
1886	7,591	53,258	91,048	.....	4,790	.....	13,201	172,888	156	5,328	1	189,964	11,364	206,813
1887	11,780	37,678	83,431	1,732	12,050	.....	10,859	157,530	15	4,406	.....	82,780	627	87,828
1888	8,563	39,999	102,974	2	26,510	179	11,598	189,825	63	1,601	56	173,259	2,309	177,288
1889	5,017	39,229	147,045	.....	27,492	.....	17,225	236,208	.....	1,587	896	227,476	1,204	231,163
1890	9,204	31,527	180,842	6,519	27,030	.....	20,497	275,619	.....	504	208	162,231	1,620	164,563
1891	6,802	32,097	127,494	8,113	52,823	.....	26,115	253,444	.....	292	705	186,572	1,773	189,342
1892	11,018	26,950	131,222	6,433	36,935	.....	31,992	244,550	.....	576	2	183,895	.....	184,473
1893	6,588	28,187	198,777	16,751	23,870	864	36,352	311,389	.....	344	.....	206,827	.....	207,171
1894	17,795	53,846	105,329	28,095	27,621	.....	60,462	198,358	.....	297	.....	188,521	.....	188,818
1895	10,169	27,881	100,512	7,904	17,020	.....	46,316	209,802	181	246	.....	149,490	.....	149,917
1896	16,224	34,878	175,094	11,128	16,137	490	46,456	300,407	.....	146	.....	207,348	.....	207,494
1897	7,237	28,919	169,057	14,173	14,969	.....	41,887	276,242	965	15	.....	165,143	.....	166,123
1898	4,212	11,268	150,667	6,909	12,732	1,197	22,671	209,656	770	339	4	156,814	.....	157,927
1899	6,118	12,926	81,777	2,424	19,526	923	18,198	141,892	351	1,646	553	88,931	.....	91,481
1900	7,966	18,771	60,545	2,402	39,706	2,149	14,248	145,787	.....	953	.....	46,024	.....	46,977
1901	17,165	23,557	55,531	7,119	26,344	.....	14,016	143,732	83	80	105	46,702	.....	46,970

* Apples, meals all kinds, pease, potatoes.

H.—TABLE showing the Tonnage of Vegetable Food carried on each of the Lines of Canals and the two principal Railways, competing for the Carrying Trade between Lake Erie and Tidewater, for a series of Thirty-one years, ended December 31, 1901.

Year.	Total on New York Canals.	Total on Welland Canal.	Total on New York Central and Erie Railways.	Quantity charged at Buffalo and Tonawanda by Erie Canal.	Quantity cleared at Oswego by Canal.	Quantity cleared through the Welland Canal in transit between ports in the United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1869*	1,302,613	503,860	1,087,809	786,436	267,815	337,530
1872	1,674,320	538,147	1,870,614	1,317,276	169,818	234,337
1873	1,745,171	579,880	2,036,992	1,432,174	131,765	243,366
1874	1,767,598	647,397	2,791,517	1,557,509	243,325	374,226
1875	1,305,550	417,936	2,343,241	1,017,559	126,763	177,908
1876	1,064,293	409,788	2,875,803	783,331	99,975	162,405
1877	1,498,984	464,181	2,493,683	1,223,100	126,899	180,586
1878	1,912,734	403,403	3,695,764	1,644,301	93,149	128,361
1879	1,833,399	438,564	4,353,617	1,565,543	127,168	87,826
1880	2,371,090	442,182	4,732,385	2,065,184	135,410	48,580
1881	1,116,561	269,395	4,983,722	878,842	115,638	65,285
1882	1,118,776	306,482	3,885,557	864,826	126,804	64,002
1883	1,379,000	372,236	4,422,461	1,191,974	72,507	132,496
1884	1,236,986	305,734	3,639,805	1,078,909	70,132	114,422
1885	1,063,310	273,905	4,105,594	918,352	59,847	118,203
1886	1,489,886	414,812	3,802,262	1,353,591	59,216	172,888
1887	1,552,764	394,971	3,847,766	1,449,984	48,133	157,530
1888	1,166,958	419,786	3,197,734	1,052,834	11,191	189,825
1889	1,296,896	542,043	3,654,984	1,155,175	59,945	236,208
1890	1,167,901	519,291	4,336,199	953,357	54,969	275,619
1891	1,092,355	367,177	3,565,381	1,000,171	39,410	253,444
1892	937,999	527,426	5,913,013	870,570	18,558	244,550
1893	1,452,563	805,253	5,107,426	1,395,391	17,620	311,389
1894	1,400,129	591,409	4,281,056	1,331,101	40,584	293,148
1895	602,505	486,421	3,798,574	508,596	14,465	209,802
1896	957,182	788,974	5,183,540	877,144	19,623	300,407
1897	744,575	816,914	5,673,638	688,635	20,449	276,242
1898	653,027	720,183	7,060,542	607,557	10,407	209,656
1899	577,486	459,688	6,211,827	527,868	12,546	141,892
1900	472,857	375,720	6,053,005	438,434	4,906	145,787
1901	557,099	290,909	6,334,001	473,729	6,266	143,732

* Fiscal.

I.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels entering the Canal at Port Colborne during the season of Navigation in 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900 and 1901.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	342	110,056	443	117,400	202	204,542	142	50,622	1129	482,620
1890.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	43,308		35,633		7,514		32,239		118,694	
Corn	63,095		51,439		172,756		40,104		327,394	
Barley					3,304		3,215		6,519	
Oats	479		73		27,030				27,582	
Pease					14				14	
Rye	1,121								1,121	
Coal	1,049		21,732				615		23,396	
Miscellaneous merchandise	3,146		5,683		32,194		2,510		43,533	
Shingles, woodenware, &c	15		1,266		8				1,289	
Sawed lumber Ft B.M.	5,921,240		5,167,201		10,274,335		14,290,800		35,653,576	
Square timber Cub. ft.	1,141,194		3,395,832						4,537,026	
Staves No.	12,255		19,947						32,202	
Firewood Cords.	15		566						581	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	256	107,575	173	68,061	241	241,317	130	50,063	809	467,016
1891.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	62,859		56,953		36,425		33,853		190,090	
Corn	20,510		9,550		137,852		17,039		184,951	
Barley					5,444		4,061		9,505	
Oats					50,212		1,076		51,288	
Pease	390								390	
Rye	29,581		11,296		16,361		7,343		64,581	
Coal	158		20,388				3,851		24,397	
Miscellaneous merchandise	8,369		6,007		37,537		2,578		54,491	
Shingles, woodenware, &c							4		4	
Sawed lumber Ft. B.M.	4,268,874		4,648,824		8,067,351		18,745,628		35,730,677	
Square timber Cub. ft.	449,406		566,109						1,015,515	
Staves No.	1,000								1,000	
Firewood Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage	No.	Tonnage.	No.	Tonnage.
	239	100,324	186	73,140	245	248,837	134	52,087	804	474,388
1892.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	74,578		54,764		60,364		36,898		226,604	
Corn	17,477		7,369		146,080		21,631		192,548	
Barley					3,995		2,438		6,433	
Oats					36,935				36,935	
Pease	524								524	
Rye	5,666				3,718		608		9,392	
Coal	775		13,350				1,365		15,490	
Miscellaneous merchandise	2,139		2,786		44,117				49,042	
Shingles, woodenware, &c	1				45		9		55	
Sawed lumber Ft. B.M.	6,278,253		7,504,256		10,494,692		26,832,564		51,109,765	
Square timber Cub. ft.	754,213		1,421,260		2,601		1,310		2,179,384	
Staves No.	46,800		32,838						79,638	
Firewood Cords.										

I.—STATEMENT showing the Quantity of Freight passed Down the Welland Canal in Canadian and United States Vessels, &c.—*Continued.*

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	193	100,107	143	58,652	390	375,682	236	122,326	962	656,767
1893.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	83,447		31,185		72,671		68,628		255,931	
Corn	23,817		12,946		313,246		91,083		441,092	
Barley	1,527		183		16,189		562		18,461	
Oats	223				27,903		3,038		31,164	
Pease										
Rye					3,216		455		3,671	
Coal	638		13,580				5,849		20,067	
Miscellaneous merchandise	6,179		286		44,976		1,647		53,088	
Shingles, woodenware, &c			15		22				37	
Sawed lumber ....Ft. B.M.	13,750,267		2,748,941		17,359,573		41,863,852		75,722,633	
Square timber ... Cub. ft.	836,048		1,437,893		5,133				2,279,074	
Staves ....No.			18,484						18,484	
Firewood.....Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	242	86,838	339	93,450	114	104,505	219	60,500	914	345,293
1894.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	95,586		54,444		79,715		37,095		266,840	
Corn	10,368		5,614		122,211		31,040		169,233	
Barley	258				28,095				28,353	
Oats	175		107		27,621				27,903	
Pease										
Rye										
Coal	1,483		1,892		61		11,109		14,545	
Miscellaneous merchandise	16,949		664		83,198		1,977		102,788	
Shingles, woodenware, &c	22								22	
Sawed lumber .... Ft. B.M.	8,423,295		279,830		11,719,664		31,891,456		52,313,745	
Square timber.....Cub. ft.	771,528		1,578,981						2,350,309	
Staves .....No.										
Firewood.....Cords.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	209	108,776	151	73,895	205	223,743	101	41,327	666	447,741
1895.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat	72,895		68,935		29,345		30,723		201,898	
Corn	16,854		3,724		126,943		17,369		164,890	
Barley	798		162		7,729				8,689	
Oats	1,531		246		16,442				18,219	
Pease										
Rye										
Coal	2		3,984				4,426		8,412	
Miscellaneous merchandise	37,356		2,361		67,705		1,324		108,746	
Shingles, woodenware, &c	20				863		1,079		1,962	
Sawed lumber .... Ft. B.M.	1,057,146		248,071		9,385,890		14,929,734		25,620,841	
Square lumber. ... Cub. ft.	1,027,913		2,049,368				35,000		3,112,281	
Staves .....No.										
Firewood .....Cords.										

SESSIONAL PAPER No. 20

I.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels, &c.—*Continued.*

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	224	122,521	181	82 543	343	337,983	163	96,506	911	639,553
1896.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		113,331		90,979		78,741		34,476		317,527
Corn		9,360		3,855		218,315		88,914		320,440
Barley		240				11,128				11,368
Oats		441		1,270		24,847		1,620		28,178
Pease		1,403		1,354				273		3,030
Rye		5,035		644		2,837		454		8,970
Coal		7		11,106		1,255		629		11,997
Miscellaneous merchandise		29,820		1,452		82,319		4,374		117,965
Shingles, woodenware, &c		134				22				156
Sawed lumber.....Ft. B.M.		2,123,213				18,259,810		27,796,146		48,179,169
Square timber.....Cub. ft.		942,923		1,649,145				246,024		2,838,092
Staves ..... No.										
Firewood ..... Cords								55		55
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	225	131.907	163	76,760	388	382,231	144	86,675	920	677,573
1897.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		121,762		55,724		106,064		37,891		321,441
Corn		33,694		15,244		274,855		66,822		390,615
Barley						14,173				14,173
Oats		223				23,515		1,168		24,906
Pease		1,851								1,851
Rye		2,047		919		5,517				8,483
Coal		3,873		3,947		368		1,615		9,803
Miscellaneous merchandise		15,739		3,290		70,968		4,174		94,071
Shingles, woodenware, &c		1,268		5		404				1,677
Sawed lumber.....Ft. B.M.		1,573,447				20,284,446		20,673,202		42,531,095
Square timber.....Cub. ft.		1,327,823		2,217,629				616,093		4,161,545
Staves.....No.		2,577,160								2,577,160
Firewood ..... Cords.		4								4
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	216	126,398	104	59,532	354	355,702	195	108,720	869	650,352
1898.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		95,567		36,157		54,934		18,355		205,013
Corn		56,538		30,455		284,059		66,761		437,813
Barley						9,465		2,821		12,286
Oats						17,329				17,329
Pease		260				45				305
Rye		3,564		1,480		9,135		1,948		16,127
Coal		575		1,916		759		2,620		5,870
Miscellaneous merchandise		19,385		4,104		47,271		8,758		79,518
Shingles, woodenware, &c		2		9						11
Sawed lumber.....Ft. B.M.		4,910,669		1,641,783		16,220,972		24,484,283		47,257,707
Square timber.....Cub. ft.		825,545		1,183,821				388,410		2,397,776
Staves.....No.										
Firewood .....Cords.		249								249

I.—STATEMENT showing the Quantity of Through Freight passed Down the Welland Canal in Canadian and United States Vessels, &c.—*Concluded.*

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	191	100,242	129	75,777	201	212,027	78	36,962	599	425,008
1899.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		91,901		80,928		16,250		7,244		196,323
Corn		28,015		18,905		138,834		18,250		204,004
Barley						2,424				2,424
Oats		1,557				21,646				23,203
Pease										
Rye						923				923
Coal		435		6,736				3,398		10,569
Miscellaneous merchandise		25,203		18,651		49,522		1,567		94,943
Shingles, woodenware, &c.		485		916				100		1,501
Sawed lumber Ft. B.M.		2,077,748		772,739		14,855,338		19,949,079		37,654,904
Square timber Cub. ft.		322,138		585,780		20,802		328,806		1,257,526
Firewood Cords.				9						9
Staves No.										
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	216	114,885	109	67,475	168	182,444	71	30,309	564	395,113
1900.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		67,694		43,157		23,066		2,130		136,047
Corn		39,597		31,248		78,701		13,963		163,509
Barley						2,402		1,047		3,449
Oats						39,706		407		40,113
Pease		115				4				119
Rye		1,389				2,149				3,538
Coal		723		637		433		559		2,352
Miscellaneous merchandise		53,649		31,536		43,344		3,564		132,093
Shingles, woodenware, &c.		1,078								1,078
Sawed lumber Ft. B.M.		6,847,279		5,344,258		14,984,483		18,770,405		45,946,425
Square timber Cub. ft.		439,827		355,951		11,583		198,420		1,005,781
Firewood Cords.		126		255						381
Staves No.		1,000								1,000
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	197	103,802	114	59,022	163	182,497	48	22,319	522	367,640
1901.	Tons.		Tons.		Tons.		Tons.		Tons.	
Wheat		57,641		58,973		31,955		1,241		149,810
Corn		7,350		4,689		55,717				67,756
Barley						7,119				7,119
Oats		944				27,197				28,141
Pease										
Rye		2,961								2,961
Coal		1,960		362		357				2,679
Miscellaneous merchandise		71,300		32,312		12,874		7,469		123,955
Shingles, woodenware, &c.		18								18
Sawed lumber Ft. B.M.		6,533,423		4,060,251		11,089,806		13,092,940		34,776,420
Square timber Cub. ft.		362,441		204,682		9,384		149,531		725,038
Firewood Cords.		165		264						429
Staves No.										

SESSIONAL PAPER No. 20

STATEMENT showing the Quantity of THROUGH Freight passed Up the Welland Canal, in Canadian and United States Vessels, during the Season of 1901.

ARTICLES.	CANADIAN VESSELS.				UNITED STATES VESSELS.				TOTAL.	
	Steam.		Sail.		Steam.		Sail.		Steam & Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	202	114,190	118	57,681	149	165,059	49	21,163	518	358,093
1901.	Tons.		Tons.		Tons.		Tons.		Tons.	
Class 3.										
Cement and water-lime					514					514
Fish					521					521
Iron railway					83					83
" pig		1,080		939						2,019
" all other		416			80					496
Salt										
Steel		21			47					68
Articles not enumerated		207			552					759
Class 4.										
Crockery and earthenware		1								1
Marble					1,360					1,360
Manilla					557					557
Nails		9								9
Paint					115					115
Pitch and tar		4								4
Sugar		29			4,368					4,397
Tin					26					26
Merchandise not enumerated		418		6	28,122					28,546
Class 5.										
Produce of wood		539		572	879					1,990
Special Class.										
Coal		456			40,004		6,341			46,801
Unenumerated articles		672		363						1,035
Total		3,852		1,880	77,228		6,341			89,301

	Tons.
Canadian Steam Vessels carried	3,852
" Sailing "	1,880
United States Steam "	77,228
" Sailing "	6,341

WELLAND CANAL THROUGH FREIGHT RECAPITULATION.

Welland Canal—West Bound Freight.

The total quantity of Through Freight passed Up the Welland Canal, in Canadian and United States Vessels, during the Season of Navigation in 1901, is as follows :—

Summary.	Tons.	Tons.
In Canadian steam vessels	3,852	
" sail "	1,880	
Total quantity in Canadian vessels		5,732
In United States steam vessels	77,228	
" sail "	6,341	
Total in United States vessels		83,569
Grand total freight passed up the Welland Canal in Canadian and United States vessels		89,301

Statement of the Quantity of Through Freight passed Up and Down, on the Welland Canal, during the Season of Navigation in 1901.

Summary.	Tons.	Tons.
In Canadian steam vessels up	3,852	
" " down	163,094	
Total in Canadian steam vessels		166,946
In Canadian sail vessels up	1,880	
" " down	107,993	
Total in Canadian sail vessels		109,873
Total quantity in Canadian vessels		276,819
In United States steam vessels up	77,228	
" " down	196,534	
Total in United States steam vessels		273,762
In United States sail vessels up	6,341	
" " down	34,314	
Total in United States sail vessels		40,655
Total quantity in United States vessels		314,417
Total in Canadian and United States vessels		591,236
	Down or East bound.	Up or West bound.
In Canadian vessels	271,087	5,732
In United States vessels	230,848	83,569
Total	501,935	89,301

Class 4.													
Agricultural Implements											3		1,785
Ashes	107	70	40	17	23	19	34	94	133	73	55	25	3
Crockery								5					

J.—STATEMENT of Large Class of Vessels Lightened at the Welland Railway Elevator at Port Colborne, showing the Tonnage, Dimensions, Depth of Water, Number of Cargoes passed through the enlarged Welland Canal during the Season of Navigation 1901.

CANADIAN STEAM VESSELS.

Date of Arrival	Name of Vessels	Registered Tonnage	Dimensions			Depth of Water on Arrival		Original Cargo to the Welland Canal							Lightenage over Welland Railway.							Lightenage over Welland Railway in Tons.							Grain Cargo and Rolling Freight through Welland Canal							Total Cargo through Canal	Depth Water Midship through Canal	Destination.		Cost of Lightening per Tonbed
1901.		Tons.	Length over all. Ft. in.	Width of Beam. Ft. in.	Depth of Hold. Ft. in.	Forward. Ft. in.	Aft. Ft. in.	Wheat. Bush.	Wheat. Tons.	Corn. Bush.	Corn. Tons.	Barley Bush.	Barley Tons.	Flax Seed. Bush.	Flax Seed. Tons.	Oats. Tons.	Rolling Freight. Tons.	Wheat. Bush.	Corn. Bush.	Barley. Bush.	Flax Seed. Bush.	Oats. Bush.	Rolling Freight. Tons.	Wheat. Bush.	Corn. Bush.	Barley. Bush.	Flax Seed. Bush.	Oats. Bush.	Rolling Freight. Tons.	Wheat. Bush.	Corn. Bush.	Barley. Bush.	Flax Seed. Bush.	Oats. Bush.	Rolling Freight. Tons.	Tons.	Ft. in.	From.	To.	$ c.
May	10 Myles	242	129	25 6	15	11	11	20,689	1,171									4,466						104						34,331						1,027	13 1	Ambrieh	Kingston	0 02
"	21 Arabian	273	180	30	13 6	14 2	14	41,000	1,230									3,940						116						37,057						1,132	13 5	Duluth	Montreal	0 02
"	23 Ramsdriam	1,035	245	40	18 4	15	15	60,000	1,800									6,274						187						54,426						1,661	14	Port Arthur	Kingston	0 02
"	26 Rosemount	989	245	41	24 8	14	13	44,000	1,320									5,244						153						38,596						1,053	13 5	Port William	"	0 02
June	13 Ramsdriam	1,035	245	40	18 4	14 2	14 1	60,000	1,800									6,274						191						53,535						1,604	14	"	"	0 02
July	20 "	1,035	245	40	18 4	14 6	14 2	62,663	1,879									6,263						175						56,225						1,685	14 10	"	"	0 01½
"	21 Myles	242	129	25 6	15	13	13	40,000	1,200									4,000						75						35,925						1,077	12 10	"	"	0 01½
"	28 Rosemount	989	245	40	24 3	14 8	13 6	64,000	1,920									14,000						423						49,573						1,979	13 10	"	"	0 01
Aug.	4 Ramsdriam	1,035	245	40	18 1	15	14	78,000	2,161									10,440						314						67,561						2,707	14	"	"	0 01
"	18 Rosemount	989	245	41	24 3	15 6	15 6	74,000	2,220									14,808						448						59,192						2,371	13 6	"	"	0 01
"	23 Ramsdriam	1,035	245	40	18 4	15 3	15	59,745	2,121								500	14,940						594						44,805						1,794	14	"	"	0 01
Sep.	7 Rosemount	989	245	41	24 3	15	5	52,000	1,710								131	13,046						436						38,954						1,559	13 6	"	"	0 01
"	16 Ramsdriam	1,035	245	40	18 1	15 6	15	37,564	1,061									9,391						265						28,173						1,126	13 6	"	"	0 01
"	27 Julia	978	198	32 6	14	13 9	14	47,000	1,410									11,750						332						35,250						1,410	13	"	"	0 01
Dec.	4 Rosemount	989	245	41	24 3	15	14 11	71,000	2,130									15,988						462						55,012						1,985	13 1	Port William	"	0 01
								870,404	26,287								941	131,959						1,641						710,214						24,246		941		23,106	

CANADIAN VESSELS—SAIL.

May	29 Mimedina	1,041	210 5	36 3	15 2	14	14		65,000	1,820									8,281					331						45,519	56,716					1,389	1,703			1,703	14 2	Chicago	Kingston	0 02
"	29 Winnipeg	691	175 5	34 6	14	14	14	50,000	1,500									1,026						124						46,992						1,373				1,373	13 5	Fort William	"	0 02
"	26 Merlin	719	184	34	14	14	14	50,000	1,500									2,041						78						46,840						1,404				1,404	13 5	"	"	0 02
"	28 Bickerdike	1,041	210	36 3	15 2	14	14	48,570	1,457									1,764						58						42,247						1,267				1,267	13	"	"	0 02
June	2 H Prince	1,048	240	42	23 4	14 2	14 3	44,370	1,331	18,749	625							2,961	1,122					77						40,179						1,206				1,206	14	Port William	"	0 02
July	17 Mimedina	1,041	210 5	36 3	15 2	14 3	14 3	61,000	1,830									2,442						78						51,308						1,539				1,539	14 8	"	"	0 01½
Oct.	7 "	1,041	210 5	36 3	15 2	14	14	53,000	1,590									6,040						201						56,954						1,709				1,709	14 3	"	"	0 01½
"	21 "	1,041	210 5	36 3	15 2	14	14 8	50,500	1,515									2,963						85						47,187						1,416				1,416	13 5	"	"	0 01½
Nov.	2 Melrose	749	183 4	34 6	14 5	14	14	49,000	1,470									4,410						130						40,957						1,310				1,310	13 2	"	"	0 01½
"	5 Selkirk	749	183 4	34 6	14 5	14 11	14 10	50,000	1,500									5,577						131						44,454						1,445				1,445	13 3	"	"	0 01½
"	27 Bermuda	804	190 5	36	15	14	14	50,000	1,500									4,000						120						45,380						1,361				1,361	13 6	"	"	0 01½
Dec.	1 Winnedina	1,041	210 5	36 3	15 2	14 8	14 8	63,000	1,890																															
								867,113	27,014	83,749	2,345							46,644	10,056					1,394	380					754,107	79,819					16,520	2,083			18,603				

UNITED STATES STEAM VESSELS

May	9 Homer	1,829	222 1	37	19	14	14 7					60,045	1,441							8,661				268		244						54 384					1,234		1,481	115	1,501	14 3	Milwaukee	Owasco	0 02
"	10 A McVittie	1,703	249	42	23 1	14	14									1,600	145			4,071				114																125	14	Chicago	Oglensburg	0 02
"	10 W L Ford	1,393	240	37	15 9	13	13										125			4,000				112																1,848	13 2	"	"	0 02
"	11 F H Prince	1,548	240	42	23 4	14 7	15 6													14,066				392																1,540	14 9	"	"	0 02
"	21 A E James	1,551	240	42	23 4	15		30,000	900								90	294	9,232	7,747				291	216					39,208					603	784				1,603	14	Prescott	"	0 02
"	21 K Langdon	1,550	240	42	23 4	14 8		60,000	1,800									681	14,989					446						21,031	10,000					931	280			1,557	13 2	"	Oglensburg	0 02
"	25 Geo Smith	1,947	249	42	23 4	14	14 11	60,000	1,800									696	14,196					496						20,466						780				1,563	13 5	"	"	0 02
"	26 A McVittie	1,551	240	42	23 4	15 1	15 2	60,000	1,800									199	10,304					311						40,049						1,489				1,489	13 11	"	"	0 02
June	2 H Prince	1,548	240	42	23 4	14 10	15	60,000	1,800									179	9,979					267						51,041						1,533				1,533	14	Prescott	"	0 02
"	2 W A Haskell	1,491	265	37	25 6	14 10	15 6											187		9,962				277						45,098						1,304				1,304	13 11	"	Oglensburg	0 02
"	11 E Jones	1,551	240	42	23 4	14 10	15													15,505				376						24,801						1,241				1,241	14	"	"	0 02
"	11 J R Langdon	1,550	240	42	23 4	14 7	14 4									1,369		382																								
"	18 A McVittie	1,551	240	42	23 4	15	15	45,000	1,240									3,291		11,016				322						17,000	33,484					1,004	1,004			2,008	13 9	"	Prescott	0 02
"	20 F H Prince	1,548	240	42	23 4	14 8	15 6	31,000	930	33,943	951							102	4,429	6,502				172	178					26,521	27,564					798	778			1,576	14	"	"	0 02
"	21 E James	1,551	240	42	23 4	14 6	14 11			15,305	429						1,133	277		6,932				194							26,868						253				1,183	14	"	Oglensburg	0 02
"	24 W J Axwell	1,455	265	36 7	25 5	14	15 8	15,000	450								1,056	103	5,291					167	186				27	9,406						282				1,039	13	"	"	0 02
"	26 J R Langdon	1,550	240	42	23 4	14 3	15 6	45,000	1,350								672	286	4,347					144						14,185	14,852					423	298			1,028	13 8	"	Prescott	0 02
July	2 Geo Smith	1,947	249	42	23 4	14 10	15 3	70,000	1,960										8,754					273							40,246						1,207				1,207	14	"	"	0 02
"	4 A McVittie	1,551	240	42	23 4	15 2	15 5	29,128	891	12,000	336						400	619	7,049	5,363				216	150					16,111	8,018					486	186			1,401	13	"	Oglensburg	0 02
"	11 F H Prince	1,548	240	42	23 4	15	15 4			60,000	1,680							376		12,417				344							47,688						1,336				1,336	14	"	"	0 02
"	11 H Jones	1,073	240	42	23 4	14 5	15			60,000	1,680							260		8,474				232							51,578						1,704				1,704	14	"	"	0 02
"	17 J R Langdon	1,550	240	42	23 4	14 9	15 2			55,000	1,540							450		12,927				362							41,177						1,377				1,377	14	"	"	0 01½
"	20 Geo Smith	1,947	249	42	23 4	14 8	15			60,000	1,680							591		13,650				421							44,791						1,493				1,493	14	"	"	0 01½
"	23 A McVittie	1,551	240	42	23 4	14 3	15 7			60,000	1,680							313		11,661				324							48,797						1,356				1,356	14	"	"	0 01
"	28 W A Haskell	1,441	265	37	25 6	15	15	70,000	300	28,500	1,425							784		11,316				317						10,000	37,162					1,037	344			1,381	14	"	"	0 01
"	29 H B James	1,552	240	42	23 4	15	15 6			60,000	1,680							293		12,062				337							47,795						1,343				1,343	13 11	"	"	0 01
Aug.	2 F H Prince	1,548	240	42	23 4	15 4	15 6			60,000	1,680							454		13,304				374							46,036						1,291				1,291	14	"	"	0 01
"	3 J R Langdon	1,550	240	42	23 4	14 7	15 5			63,500	1,773							368		14,253				399							49,016						1,374				1,374	13 6	"	"	0 01
"	3 Geo Smith	1,947	249	42	23 4	14 6	15 6	50,310	1,780									368	15,547					446						13,893						1,329				1,329	14	Prescott	"	0 01
"	12 A McVittie	1,551	240	42	23 4	15 1	15 7	10,000	482	30,976	1,025							249	9,262	6,440				247	184					7,738	8,198					253	845			1,098	13 11	"	"	0 01
"	18 W A Haskell	1,441	265	37	25 6	14	14	70,000	720	14,000	392							703	6,362	7,514				190	178					15,838	6,482					1,079	1,187			2,266	13 7	"	"	0 01
"	20 F H Prince	1,548	240	42	23 4	15 6	15			59,345	1,551							592		12,026				355							42,589						1,176				1,176	14	"	"	0 01
"	20 H B James	1,552	240	42	23 4	15	15	25,000	750	28,304	787							471	5,449	6,705				163	141					10,551	21,568					687	854			1,541	14	"	"	0 01
"	24 J R Langdon	1,550	240	42	23 4	14 10	15 2			45,000	1,260							718		11,036				417							30,064						842				842	14	"	"	0 01
"	29 Geo Smith	1,947	249	42	23 4	15 5	15	56,500	1,695									425	14,258					427	418					12,242						1,264				1,264	14	"	"	0 01
"	31 A McVittie	1,551	240	42	23 4	15 7	15 7	30,000	900	30,000	840							366	9,277	7,102				278	204					20,743	22,805					922	629			1,551	13 11	"	"	0 01
Sept.	5 W A Haskell	1,441	265	37	25 6	15	15	50,000	1,500									341	5,761					288						40,979						1,202				1,202	14	"	"	0 01
"	9 F H Prince	1,548	240	42	23 4	14 3	15 7	30,000	900	15,939	422						320	329	9,000	5,000				265						21,031	15,070					631	422			1,053	14	"	"	0 01
"	10 H B James	1,552	240	42	23 4	15 2	15 6			60,000	1,680							376		14,132				393							45,768						1,295				1,295	13 6	"	"	0 01
"	14 J R Langdon	1,550	240	42	23 4	14 9	15 5			60,000	1,680							389		14,220				398							45,374						1,282				1,282	13 11	"	"	0 01
"	14 W J Axwell	1,455	265	36 7	25 5	15 6	16	55,837	1,676									292		13,434				403						42,004						1,273				1,273	13	"	"	0 01
"	17 Geo Smith	1,947	249	42	23 4	15 2	15 6											547		12,921				361							49,040						534				1,091	14	"	"	0 01
"	21 A McVittie	1,551	240	42	23 4	15	15			70,000	1,960							87		13,298				252							53,712						1,598				1,598	14	"	"	0 01
"	26 F H Prince	1,548	240	42	23 4	14 10	15			45,000	1,260							759		11,708				318							33,792						787				1,705	14 14	"	"	0 01
Oct.	1 H B James	1,552	240	42	23 4	15	15			40,000	1,120							743		11,920				334							33,616						926				1,260	14	"	"	0 01
"	5 Geo Smith	1,947	249	42	23 4	15 2	15 5			50,000	1,400							589		13,240				368							37,312						1,042				1,042	14	"	"	0 01
"	5 J R Langdon	1,550	240	42	23 4	14 1	15			45,000	1,260							597		10,146				368							33,054						869				869	13 4	"	"	0 01
"	10 A McVittie	1,551	240	42	23 4	15 4	15 6			48,000	1,344							748		14,101				413							34,593						847				1,260	14 11	"	"	0 01
"	10 F H Prince	1,548	240	42	23 4	15	15			55,000	1,540							544		15,427				431							39,452						1,109				1,109	14	"	"	0 01
"	10 H B James	1,552	240	42	23 4	14 9	15 5			45,000	1,260							594		13,748				379							31,252						844				1,723	14	"	"	0 01
"	14 W J Axwell	1,455	265	36 7	25 5	15 6	15 9											546																								
"	17 Geo Smith	1,947	249	42	23 4	15 10	14 2					50,000	1,250	1,289						5,970				149							44,030					1,101	1,434			2,535	14	"	"	0 01
"	18 Montcalm	1,035	237	35	19 8	14 3	14 8									1,804		581						586							42,040						1,108				1,108	13	Duluth	Kingston	0 01
"	20 Marquette	1,110	250	35 7	19 5	14	14 10																																	
"	21 A McVittie	1,551	240	42	23 4	14 7	14 7	51,000	1,530																															
"	27 J R Langdon	1,550	240	42	23 4	14 9	15			45,000	1,277							595		13,105				398	237						32,439	52,160					999	1,392			2,391	13	Milwaukee	Owasco	0 01
"	27 H B James	1,552	240	42	23 4	14	14			45,000	1,260							541		10,172				284							34,828						956				1,240	13 7	Chicago	Oglensburg	0 01
"	28 Geo Smith	1,947	249	42	23 4	14 6	14											966						267							37,920						1,126				1,126	13	"	"	0 01
"	28 J R Langdon	1,550	240	42	23 4	14 4	14	49,662	1,366									427		12,472				374							29,266						839				1,213	13	"	"	0 01
"	14 W J Axwell	1,455	265	36 7	25 5	15 6	15 9											546																								
"	18 Montcalm	1,035	237	35	19 8	14 4	14 8			45,000	1,260							546		15,734				427							29,266						839				1,266	13	"	"	0 01
"	18 Montcalm	1,035	237	35	19 8	14 4	14 8					61,000	1,464					1,369	351					127	276															1,254	13	"	"	0 01
"	20 Marquette	1,110	250	35 7	19 5	14	14 10									1,804				8,597																				1,258	13 8	Milwaukee	Owasco	0 01
"	21 A McVittie	1,551	240	42	23 4	14 7	14 7											591		10,142				361							50,868						1,527				1,527	13 6	Duluth	Oglensburg	0 01
"	27 J R Langdon	1,550	240	42	23 4	14 7	14 7	10,000	450	15,000	420							1,026	347	5,423				151		68					9,577						269				958	13	Chicago	Oglensburg	0 01
"	28 W A Haskell	1,441	265	37	25 6	14 3	14 9			40,000	1,120							433	6,017	10,624				190	276					8,943	29,376					276	833			1,385	13	"	"	0 01
"	30 H. B. James	1,552	240	42	23 4	14 7	14 7			1,339	34							1,339						212																308	13	"	"	0 01
Dec.	3 Pimbia	1,604	252	36	19	15 2	15 3			31,000	868							480	501	10,954				302							20,033						501				1,369	13	"	"	0 01
"	5 Bonita	1,604	190	37	24 1	15 1	15 2			64,276	1,799									14,547				407							47,729						1,193				1,193	13 5	"	"	0 01
"	6 Geo Smith	1,947	249	42	23 4	14 9	15			50,000	1,625									14,679				411							44,321						1,241				1,241	13 4	"	"	0 01
"	8 Alpena	1,604	252	36	19	14 9	15	15,000	450	50,000	1,614							425	10,637	7,166				349	284					1,264	30,744					894				2,158	13	"	"	0 01
"	9 Bryan Whitaker	1,367	226	36	20 1	14 9	15			58,000	1,680									10,543				163							45,462						1,247				1,247	13	"	"	0 01
								823,767	24,715	2,258,956	63,255	183,070	4,395	50,000	1,250	15,316	26,091	241,766	546,854	27,113	5,979	6,348	15,292	651	149	1,296		611,811	1,742,096	150,367	44,036	18,987	47,963	3,744	1,101	14,020	26,091	111,240				

RECAPITULATION.

	Number.																																					
Canadian Vessels Steam	15	876,134	26,267									944			134,890			1,011						741,244						22,246					944				23,190			
" Sail	12	107,111	17,914	83,750	2,345										40,644	10,056		1,394	280					540,867	79,054					16,520	2,083							18,603			
Total Canadian	27	1,417,245	44,201	83,750	2,345							944			181,534	10,056		2,405	280					1,281,111	79,054					38,766	2,083				944				41,775			
United States Vessels Steam	74	823,767	24,715	2,258,956	63,255	183,070	4,395	50,000	1,250	15,316	26,091	241,766	546,854	27,113	5,979	6,348	15,292	651	149	1,296		611,811	1,742,096	150,367	44,036	18,987	47,963	3,744	1,101	14,020	26,091	111,240								
" Sail																																									
Total United States	74	823,767	24,715	2,258,956	63,255	183,070	4,395	50,000	1,250	15,316	26,091	241,766	546,854	27,113	5,979	6,348	15,292	651	149	1,296		611,811	1,742,096	150,367	44,036	18,987	47,963	3,744	1,101	14,020	26,091	111,240								
Total Canadian and United States	101	2,297,012	68,916	2,342,706	65,600	183,070	4,395	50,000	1,250	15,316	26,091	242,710	546,910	27,113	11,785	16,404	15,292	651	149	1,296		1,893,922	1,821,150	150,367	44,036	18,987	47,963	3,744	1,101	14,020	26,091	153,015								

K.—Statement showing the Quantity of freight passed Eastward, from Lake Erie, through the whole length of the Welland and St. Lawrence Canals, to Montreal, during the Seasons of Navigation in 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900 and 1901.

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 3.													
Cement and water lime								12					
Clay, lime and sand									38	52	15	15	
Iron, pig			371			195	79	5				508	
" all other						1	1,766	2,020	7,564	6,217	5,063	4,292	1,178
Steel							394	542	375	1,351	3,000	5,420	
Stone for cutting								200					
Apples				54		50	28	1,263					
Barley					600	258	959	240		3,960	596	1,288	
Corn	195,350	139,798	52,539	53,689	278,564	60,661	70,235	182,330	267,583	310,498	150,999	109,359	14,319
Flaxseed									3,293	5,687			4,965
Flour	6,841	3,065	3,324	2,874	5,514	16,503	30,916	11,964	1,029	653	4,229	1,595	1,400
Meal, all kinds	148	222	67	16		4	65						35
Oats	320	479			9,761	175	1,654	12,373	6,847	3,975	10,250	8,925	1,584
Oil cake													1,083
Pease			390	524				3,020	2,078	260		115	
Rye	1,281	1,120	64,978	9,119	3,669			8,323	8,435	15,488	923	3,078	2,961
Salt									216	141	183		50
Seeds, all kinds	3	2	2	75				20			200		
Hay pressed											96		246
Tobacco, raw			1						51				23
Wheat	70,815	75,515	159,785	194,281	209,212	212,557	158,643	255,198	278,498	184,154	169,978	121,896	132,702
All other agricultural products, vegetable	798	3	2			29		29		56	32		
Hides, skins, horns and hoofs				20									
Horses	2	3	2	2	1	1	1	1	1	4	1		
Lard and lard oil			100										1,155
Meats, all kinds													111
Pork	1,220	221	201			717		1					34
All other agricultural products, Animal	32	117		103									
Total, Class 3	276,813	220,545	281,762	260,757	507,321	201,151	264,740	477,541	576,008	532,499	345,565	256,491	161,849
Class 4.													
Agricultural Implements											3		1,785
Ashes	107	70	40	17	23	19	34	94	133	73	55	25	3
Crockery								5					

K.—Statement showing the Quantity of Freight passed Eastward, from Lake Erie, through the whole length of the Welland and St. Lawrence Canals, to Montreal, &c.—*Concluded.*

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 4—Con.													
Furniture		1	2	1		2			1			1	5
Glass, all kinds		1	1					9	53	75	16	6	1
Molasses							100	167	9	56	159		
Nails											1		
Oil	4	6					6	23	112	1,141	7,143	15,647	14,987
Paint							2						17
Pitch and tar													
Rags								4					
Soda Ash													4
Sugar								1					112
Stone, wrought													
Tobacco											96		
White lead												16	
Whisky, beer, and other spirits	20	26	105	6	1		101		46	4	74	11	32
Merchandise, not enumerated	193	142	278	36	4	330	558	376	1,226	866	518	92	2,420
Total, Class 4	324	246	426	60	28	351	801	679	1,580	2,215	7,969	15,798	19,366
Class 5.													
Barrels, empty				1			1				1	182	66
Hoops									257				
Sawed lumber	6,118	3,579	3,908	1,678	667	683	1,117	657	478	3,065	924	15,760	2,635
Staves, pipe and barrel				8					4,716				
" West India and pipe	270			200									
Timber, square, in vessels													5
" in rafts	9,302		5,680	400				1,200	1,207	329	26		
Woodenware		1				6							
Total, Class 5	15,690	3,580	9,588	2,327	667	689	1,118	1,857	6,658	3,394	951	15,942	3,205
Special Class.													
Coal													
Grand total	292,827	224,371	291,776	263,144	508,016	292,191	266,659	480,077	584,246	538,108	354,485	28,231	184,420

L.—Statement showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland Canal to Lake Erie, during the Seasons of Navigation in 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900 and 1901.

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 3.													
Bricks	84	252	469	.....	.....	1	24	15	70	70	24	49	196
Brimstone	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Cement and water lime	823	62	2,380	1,570	3,169	2,281	1,859	1,686	837	996	997	1,931	2,916
Clay, lime and sand	3	8	206	240	.....	253	.....	.....	4	114	8	4	2
Fish	80	26	7	426	465	512	.....	11	10	9	10	8	8
Gypsum	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....
Iron, railway	15,513	20,003	2,855	1,171	6,576	20	.....	1,687	.....	.....	.....	74	748
" pig	250	20	112	74	25	.....	56	28	6	.....	.....	3	.....
" all other	290	584	595	387	543	114	1,831	727	559	699	1,318	1,428	4,950
Salt	4,216	7,440	4,391	2,034	995	843	932	822	25	35	.....	48	75
Steel	3	1	.....	269	426	248	528	.....	.....	19	18	.....	3
Stone for cutting	.....	12	.....	145	.....	.....	.....	4	62	.....	.....	.....	.....
Flour	.....	48	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	16
Hay	.....	.....	.....	.....	.....	.....	124	.....	.....	.....	.....	.....	.....
Meals	.....	.....	.....	.....	.....	15	.....	.....	.....	.....	.....	.....	.....
Oats	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potatoes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seeds, all kinds	215	100	.....	.....	.....	33	25	99	121	56	121	218	302
Agricultural products not enumerated, vegetables	19	.....	52	.....	.....	5	26	.....	4	.....	.....	.....	1
Hides and skins	.....	.....	.....	.....	.....	.....	26	.....	.....	.....	.....	.....	.....
Horses	2	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
Lard and lard oil	.....	72	.....	16	.....	.....	1	.....	.....	2	.....	.....	.....
Pork	.....	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wool	.....	13	2	13	.....	.....	.....	.....	.....	.....	.....	1	.....
All other articles not enumerated	.....	1	2	.....	.....	10	.....	.....	.....	.....	.....	.....	.....
Total, class 3	21,498	28,675	11,071	6,345	12,202	4,335	5,432	5,080	1,698	2,031	2,500	3,764	9,222
Class 4.													
Ashes, pot and pearl	.....	10	31	88	.....	.....	.....	.....	1	.....	.....	.....	.....
Crockery and earthenware	112	11	251	8	98	107	12	83	4	33	3	5	.....
Dye woods, &c	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Furniture	.....	.....	1	3	.....	.....	.....	.....	2	.....	.....	1	.....

L.—Statement showing the Quantity of Freight passed Westward from Montreal, through the whole length of the St. Lawrence and Welland Canal to Lake Erie, &c. — *Concluded.*

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 4—Con.													
Glass, all kinds	71	23	30	152	365	175	394	612	799	150	299	456	612
Manilla	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....
Molasses	56	.....	.....	32	43	42	20	1	.....	.....	.....	.....	1
Nails	736	453	560	276	472	500	1,149	409	129	229	518	180	675
Oil, in barrels	9	11	64	2	44	8	31	33	12	15	21	74	83
Paint	49	24	61	15	70	8	75	49	20	35	2	12	69
Pitch and tar	.....	13	22	15	26	152	67	60	20	37	6	21	27
Rags	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	.....	.....
Resin	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	15	.....	.....
Soda, ash	766	554	377	352	68	94	84	74	249	88	108	69	169
Stone, wrought	.....	.....	.....	.....	14	.....	.....	17	25	31	.....	.....	.....
Sugar	7	551	412	1,320	2,218	2,724	1,430	1,873	314	566	1,596	430	810
Tin	480	10	23	27	34	327	396	395	359	237	159	117	338
Turpentine	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
White lead	4	19	3	6	35	2	7	10	5	.....	1	4	11
Whiting	33	34	50	71	31	1	113	56	104	93	89	39	49
Whisky, beer, &c.	124	350	294	220	26	53	77	51	93	98	178	295	131
Merchandise, not enumerated	1,422	1,180	810	538	799	900	1,268	1,247	711	793	482	744	1,516
Total, class 4	3,870	3,276	2,989	3,125	4,343	5,104	5,123	4,970	2,844	2,405	3,491	2,447	4,492
Class 5.													
Barrels, empty	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber, sawn, in vessels	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodenware	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, class 5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Special Class.													
Coal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total	25,370	31,951	14,060	9,470	16,545	9,439	10,555	10,050	4,542	4,436	5,991	6,211	13,714

M. STATEMENT showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Season of Navigation from 1889 to 1901, inclusive.

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 3.													
Bricks		4							845				
Cement and water lime										300		18	
Fish			1		5	5							
Iron, railway							181		965	770			
" all other	520	1	10	1	102		214			324	1,008	714	
Salt			494								549		105
Steel				1				498		2,951	13,522	3,110	
Stone for cutting													
Apples													
Barley		6,519	8,113	6,433	16,751	28,095	7,904	11,128	14,173	6,909	2,424	2,462	7,119
Corn	147,045	180,842	127,494	131,222	198,777	105,329	100,512	175,094	169,057	150,667	81,777	60,545	55,531
Flour	5,017	9,204	6,802	11,018	6,588	17,795	10,169	16,224	7,237	4,212	6,118	7,966	17,168
Hay, pressed									301				
Meal, all kinds	17,224	20,482	26,096	31,724	36,352	60,390	46,316	46,456	41,641	22,626	18,198	14,244	14,016
Oil cake						29						2,705	1,302
Oats	27,492	27,030	52,823	36,935	23,870	27,621	16,412	16,137	14,969	12,729	19,526	39,706	26,344
Pease										45		4	
Potatoes	1	1											
Rye					864			490		1,197	923	2,149	
Flax seed											200		
Seeds, all kinds	151	135	256	50	16		14	78	299	44	11		23
Tobacco													23,557
Wheat	39,229	31,527	32,097	26,950	28,187	53,846	27,881	34,878	28,919	11,268	12,926	18,771	
Agricultural products, vegetables		14	42									6	10
Hides and skins, &c.							8	41	23				
Horses	1	1	3		2	4		3	3	2		4	
Lard and lard oil, &c	32	30	10		1		6	1,348	1,444	3,671	864	1,588	1,680
Meats, other than pork	3	15	2	29			30						
Pork	21	88	73	1	52	56	87	390	243	1,271	343	117	970
Sheep													
Tallow										359	201	631	119
Wood	452		1,237	70	80	1,484	1,536	900	197	89	130		3
Total, class 3	237,188	275,893	255,553	244,434	311,647	294,654	211,300	303,665	280,319	219,434	158,720	154,680	147,947
Class 4.													
Agricultural implements													
Crockery and earthenware	1												
Furniture	30	21	7				2			2	7		3

M.—STATEMENT Showing the Quantity of Freight passed Eastward through the Welland Canal, from United States Ports to United States Ports, during the Season of Navigation from 1889 to 1901, inclusive—*Concluded.*

Articles.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Class 4—Con.													
Glass, all kinds			1										
Marble													4
Molasses											8	57	
Nails						57					11		
Oil in barrels			1				30	1,005	198	119	367	17	22
Paint		3		41						3	2	36	
Rags											1		
Soda, ash													
Stone, wrought	2												
Sugar							59	165	31			154	448
White lead		1											
Whisky, beer and all other spirits	190	228	167	46	83		15			34	168	1	1
Merchandise	1,679	1,822	1,865	1,331	1,693	2,976	7,656	3,990	3,591	3,828	6,219	7,889	3,327
Total, class 4	1,902	2,075	2,041	1,421	1,782	3,033	7,762	5,160	3,820	3,986	6,783	8,164	3,805
Class 5.													
Empty barrels					9			10				5	282
Firewood in vessels								165					
Lumber, sawn, in vessels	55,074	38,030	45,504	54,173	68,985	62,905	41,974	75,515	68,280	52,844	57,695	55,128	38,685
Masts and spars, in vessels									403				
Hoops													
Railway ties, in vessels							446						
Shingles	51				13								
Staves, barrel													
Timber, square, in vessels							500		1,040				
Woodenware, &c	333	8	4	54				12	1				
Total, class 5	55,458	38,038	45,508	54,227	69,007	62,905	42,920	75,702	69,724	52,844	57,695	55,133	38,367
Special Class.													
Coal	1,124	615	1,382	651	2,123	727	603	1,255		759	2,293	992	357
Stone, not suitable for cutting	1,681	18											
Kryolite		1,620	1,773										
Total, special class	2,805	2,253	3,155	651	2,123	727	603	1,255		759	2,293	992	357
Grand total	297,353	318,259	306,257	300,733	384,559	361,319	262,585	385,782	353,863	277,023	225,491	218,969	190,476

N.—STATEMENT showing the Number of Vessels which took their Cargoes of wheat through the Welland Canal from ports west of Port Colborne; the quantity transhipped at Kingston and Prescott, and the quantity of each Cargo through the St. Lawrence Canals to Montreal, during the Season of Navigation in 1901.

Names of Vessels.	Original quantity through the Welland Canal.	Quantity transhipped at Kingston and Prescott.	Cargo through the St. Lawrence Canals to Montreal
	Tons.	Tons.	Tons.
Canadian Steamer Arabian	1,230		1,230
" " "	1,200		1,200
" " "	1,200		1,200
" " "	1,200		1,200
" " Cuba	540		540
" " "	540		540
" " "	510		510
" " Glengarry	631	298	333
" " Lake Michigan	436		436
" " Melbourne	600		600
" " "	540		540
" " "	510		510
" Barge Dunmore	1,260	415	845
" " Winnipeg	1,470	697	773
Total	11,867	1,410	10,457

No. of cargoes of Wheat	14	
Quantity through Welland Canal to Kingston and Prescott	11,867	tons.
" transhipped at Kingston and Prescott	1,410	"
" taken to Montreal in vessels in which it arrived at Kingston and Prescott	10,457	"

N.—STATEMENT showing the number of Vessels which took their cargoes of Corn through the Welland Canal from ports west of Port Colborne; the quantity transhipped at Kingston and Prescott, and the quantity of each cargo through the St. Lawrence Canals to Montreal, during the Season of Navigation in 1901.

Names of Vessels.	Original quantity through the Welland Canal.	Quantity transhipped at Kingston and Prescott.	Cargo through the St. Lawrence Canals to Montreal
	Tons.	Tons.	Tons.
Canadian Steamer Cuba	476		476
" " "	504		504
" " "	490		490
" " "	532		532
" " Melbourne	560		560
" " "	448		448
" " "	560		560
" " "	560		560
" " "	476		476
United States " Northeastern	1,120		1,120
" " Northman	1,120		1,120
Total	6,846		6,846

No. of cargoes of Corn	11
Quantity through Welland to Kingston and Prescott	6,846 tons.
" transhipped at " "	Nil.
" taken to Montreal in vessels in which it arrived at Kingston and Prescott	6,846 "

RECAPITULATION of the Number of Vessels passed DOWN the Welland Canal with Cargoes of Grain for Montreal, the Quantity transhipped at Kingston and Prescott, and the Quantity taken to Montreal, for the Season of Navigation in 1901.

	Number of Cargoes.	Total Number.
Wheat	14	
Corn	11	
Total		25
	Tons.	Tons.
Quantity of wheat through the Welland Canal, bound for Montreal	11,867	
" corn " " "	6,846	
Total through Welland Canal		18,713
Quantity of the above transhipped at Kingston and Prescott—		
Wheat	1,410	
Corn		
Total transhipped		1,410
Quantity of the above cargoes taken to Montreal in vessels in which it arrived at Kingston and Prescott—		
Wheat	10,457	
Corn	6,846	
Total quantity to Montreal		17,303
Grand total		18,713

O.—Statement showing the Quantity of Grain passed Down the Welland Canal to Kingston, Prescott, Ogdensburg and other Ports, in Canadian and United States Vessels, entering the Canal at Port Colborne, during the Season of Navigation in 1901.

—	Canadian Vessels.				United States Vessels.				Total.	
	Steam.		Sail.		Steam.		Sail.		Steam and Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
	197	103,802	114	59,022	163	182,497	48	22,319	522	367,640
		Tons.		Tons.		Tons.		Tons.		Tons.
Barley						7,119				7,119
Corn		7,350		4,689		55,717				67,756
Oats		944				27,197				28,141
Pease										
Rye		2,961								2,961
Wheat		57,641		58,973		31,955		1,241		149,810
Total		68,896		63,662		121,988		1,241		255,787

					Tons.
69	cargoes	in Canadian	vessels,	steam, total quantity	68,896
43	"	"	"	sail "	63,662
132	"	United States	vessels,	steam, total quantity	121,988
3	"	"	"	sail "	1,241

P.—STATEMENT of the Quantity of Grain arrived at Kingston, Prescott and Ogdensburg in Vessels, which passed Down the Welland Canal, during the Season of Navigation in 1901.

Summary.	Tons.	Tons.
Canadian steam vessels—69 cargoes of grain	68,896	
" sail " 43 "	63,662	
Total in Canadian vessels		132,558
United States steam vessels—132 cargoes of grain	121,988	
" sail 3 "	1,241	
Total in United States vessels		123,229
Total in Canadian and United States vessels		255,787
Distributed as follows—		
23 Canadian and 2 United States vessels arrived at Kingston and Prescott and discharged part of their cargoes, taking the balance to Montreal		17,303
222 vessels arrived at Kingston, Prescott, Ogdensburg and other ports and discharged all their cargoes as follows—		
89 cargoes in Canadian vessels	116,085	
133 " United States vessels	120,989	
Quantity discharged by the 3 Canadian vessels which took the balance to Montreal	1,410	
Total quantity discharged	238,484	
Total quantity of above transhipped from Kingston, Prescott and Ogdensburg to Montreal		*124,939
Quantity transhipped from Kingston, Prescott and Ogdensburg to Cardinal		5,589
Quantity remaining at Kingston, Prescott, Ogdensburg and other American ports		107,965
Total		255,787

*Of this quantity 17,387 tons were transhipped from Ogdensburg to Montreal.

Q.—Comparative Statement of the Quantity of Grain passed Down the Welland Canal to Kingston, Prescott and Ogdensburg during the Season of Navigation in 1900 and 1901.

	1900.		1901.	
	No. of Cargoes.	Tons.	No. of Cargoes.	Tons.
Quantity arrived at Kingston and Prescott in Canadian vessels	325	183,200	112	132,558
Quantity arrived at Kingston, Prescott and Ogdensburg in United States vessels	239	163,575	135	123,229
Total	564	346,775	247	255,787
Quantity transhipped at Kingston, Prescott and Ogdensburg in Canadian vessels for Montreal		217,735		124,939
Quantity taken to Montreal in vessels in which it arrived at Kingston and Prescott		14,513		17,303
Quantity remaining at Kingston, Prescott, Ogdensburg and Cardinal		*114,527		113,545
Total		346,775		255,787

*Of this quantity 9,324 tons were transhipped to Montreal in 1901.
22 vessels took their cargoes through in 1901, against 15 in 1900.
3 vessels discharged part of their cargo in 1901, against 7 in 1900.
222 vessels discharged all of their cargo in 1901, against 542 in 1900.

R.—Statement showing the Number of Vessels, their Tonnage, Number of Passengers and Tons of Freight passed down the Rapids of the St. Lawrence Canal during the Season of Navigation in 1901.

Destination.	Number of Sections.	Number of Vessels.	Tonnage of Vessels.	Number of passengers	Class Three.	Class Four.	Class Five.	Special Class.	Tolls.
			Tons.		Tons.	Tons.	Tons.	Tons.	$ cts.
Prescott to Montreal	4	135	68,482	20,343	249	1,732			2,931 68
" Lachine	3	40	22,405	3,287	338	1,108			577 02
Soulanges to Montreal	2	5	2,245	851		35			50 48
" Lachine	1	118	20,667	3,093	1,536	285	27		191 44
Lachine to Montreal	1	285	57,385	11,164	909	456	10		429 54
Total		583	171,184	38,738	3,032	3,616	37		4,180 16

S.—The quantity of Coal passed through the Welland Canal during a series of years from 1885 to 1901, inclusive, and the amount of Tolls collected thereon, is as follows:—

Year.	From Canadian Ports to Canadian Ports.	From Canadian Ports to Canadian Ports.	From United States Ports to United States Ports.		From United States Ports to United States Ports.		Total, Tons.	Amount of Tolls Paid — Rate 20 cents a ton.
	Up.	Down.	Up.	Down.	Up.	Down.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		$ cts.
1885			193,442	4,974	10,321	31,350	240,087	48,017 40
1886			184,564	5,400	22,187	49,724	261,875	52,375 00
1887			81,617	1,163	26,775	25,968	135,523	27,104 60
1888			172,381	878	17,365	27,183	217,807	43,561 40
1889			226,352	1,124	12,036	25,931	265,443	53,188 60
1890	80		116,616	615	17,280	22,781	202,372	38,222 30
1891			185,190	1,382	17,374	20,698	224,644	44,928 20
1892			183,244	651	12,391	15,330	211,616	42,284 13
1893			204,704	2,123	8,325	17,944	233,096	46,619 20
1894			187,794	727	1,269	13,947	203,737	40,789 93
1895	4		148,887	603	1,565	7,807	158,866	31,773 05
1896	20	210	206,093	1,255	4,127	11,740	223,445	44,668 20
1897		4	165,143		1,277	9,799	176,223	35,244 60
1898			156,055	759	986	4,536	162,336	32,467 20
1899			86,638	2,293	525	8,276	97,732	19,546 40
1900	8		45,032	992		1,360	47,392	9,478 40
1901			46,345	357	456	2,322	49,480	9,896 00

NOTE.—Tolls on soft coal passed down the Welland Canal, during the season of 1895, were reduced from 20 to 10 cents a ton, per O.C. 11th May, 1890, for the season of 1890 only, the rate for 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900 and 1901 being 20 cents a ton for passage either eastward or westward.

T.—STATEMENT showing the quantity of Coal passed through the whole length of the St. Lawrence Canal during the seasons of 1885 to 1901, inclusive.

Year.	Quantity passed up Free of Tolls.	Quantity passed down to Montreal.	Total Quantity passed up and down.	Amount of tolls on Quantity passed down to Montreal.
	Tons.	Tons.	Tons.	$ cts.
1885	5,035	122,829	127,864	18,424 35
1886	3,301	118,802	122,103	17,820 70
1887	7,579	121,618	129,197	18,242 70
1888	8,341	123,050	131,391	18,423 90
1889	5,360	124,290	129,650	18,604 90
1890	6,538	135,168	141,706	20,275 20
1891	7,951	141,701	149,652	21,255 15
1892	7,543	157,134	164,677	23,570 10
1893	2,285	147,139	149,424	22,070 85
1894	16,213	169,552	185,765	25,432 80
1895		165,151	165,151	24,772 65
1896	689	161,551	162,240	24,232 65
1897	40	164,963	165,003	24,722 37
1898	400	175,609	176,009	26,341 05
1899	448	201,546	201,994	30,231 80
1900	10	280,169	280,179	42,025 35
1901	2,765	298,245	301,010	44,732 55

NOTE.—Coal is allowed to pass free up the St. Lawrence Canals.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1890.	Tons.	Tons.	Tons.
Ashes	70		
All other products, animal	14		
" vegetable	1		
Barley			6,519
Bricks			4
Coal		22,781	615
Corn	134,966	11,584	180,842
Fish	49		
Flour	3,065		9,204
Furniture	1	1	21
Glass, all kinds	1		
Horses	3		1
Iron, all other			1
Kryolite		1,280	1,620
Lard and lard oil		5	30
Meal	222		20,482
Meats			15
Oats	479	73	27,030
Oil, in barrels	6		
Oil cake	2		
Paint			3
Pease			14
Pork	221	19	88
Potatoes			1
Rye	1,120	1	
Salt		701	
Stone, for cutting		5,761	
" wrought		639	18
Seeds, all kinds	2		135
Spirits, &c	26		228
Tallow	54		
Wheat	75,515	5,241	31,527
White lead			1
Merchandise	142	32	1,822
Barrels, empty			7
Firewood, in vessels		1,398	
Lumber, sawn, in vessels	3,195	3,767	47,590
" " rafts	384		
Staves and headings, pipe		187	
" " West Indies		36	
Shingles			14
Square timber, in vessels		73,112	
" " rafts		17,683	
Woodenware	1		1
	219,539	144,301	327,833
Corn 16,033			
Oats 400			
	16,433		*16,433
Totals	235,972	144,301	311,400

*This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence Canals to Montreal.

A refund of 18 cents, Welland Canal tolls, was allowed on wheat, Indian corn, pease, barley, rye (and oats for export), when shipped for Montreal or some port east of that point, per Orders in Council 26th February and 5th May, 1890.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.		Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1891.		Tons.	Tons.	Tons.
Ashes		40		
Agricultural products		2		42
Barley				8,113
Corn		52,539	5,144	127,494
Coal			20,698	1,382
Flour		3,524		8,802
Fish				1
Furniture		2	2	7
Glass		1		1
Horses		2	2	3
Hay			21	
Iron, pig		371	128	
" all other			1,036	10
Lard and lard oil		100	16	10
Meal, all kinds		67		26,096
Meats, other than pork			1	2
Molasses			20	18
Oats				52,823
Oil				1
Pease		390		
Pork		201		73
Rags				60
Rye		64,978	969	
Seeds, all kinds		2		256
Salt			1,861	494
Stone for cutting			6,602	
" wrought			7	
Tobacco		1		
Tallow			9	8
Wheat		159,785	692	32,097
Staves, pipe			8	
Whisky and all other liquors		105	57	167
Wool				1,237
Merchandise		278	6	1,779
Kryolite			1,098	1,773
Lumber, in vessels		2,991	1,300	56,456
" in rafts		917		
Timber, square, in rafts		5,680	14,638	
Barrels				4
Corn	12,169	291,776	54,315	217,209
Wheat	5,648			
		17,817		*17,817
Total		309,593	54,315	299,392

* This quantity of grain was transhipped at Ogdensburg and passed down the St. Lawrence Canals to Montreal.

A refund of 18 cents a ton, Welland Canal tolls, on wheat, Indian corn, pease, barley, rye and (for export) oats, originally shipped for Montreal or some port east of Montreal, per Order in Council, March, 25, 1891.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1892.	Tons.	Tons.	Tons.
Ashes, pot and pearl	17	2	
Apples	54		
Barley			6,433
Corn	53,689	7,637	131,222
Coal		14,839	651
Flour	2,874		11,018
Fish	9		
Furniture	1		7
Hides	20		
Horses	2		
Iron, railway		100	
" all other		765	1
Meal, all kinds	16		31,724
Meats, other than pork	94		29
Oats			36,935
Oil		7	
Pease	524		
Potatoes			1
Pork			44
Rye	9,119	273	
Salt		865	
Seeds, all kinds	75		50
Steel			1
Stone for cutting		1,264	
Sugar			20
Wheat	194,281	5,373	26,950
Whisky, beer, spirits, &c	6	15	46
Wool			70
Merchandise not enumerated	36	13	1,304
Barrels, empty	1		29
Lumber, sawn, in vessels	1,678	150	83,403
Square timber	440	42,768	410
Staves and headings, pipe	8	80	
" " West India	209	76	
Shingles			25
Total	263,144	74,227	330,403
*Wheat	+4,341	—4,341	
Total	267,485	69,886	330,403

* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators, and subsequently transhipped to Montreal.

A refund of 18 cents a ton, Welland Canal tolls, was allowed on wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat which passed down the whole length of the Welland and St. Lawrence Canals, to Montreal, or any port east of Montreal, and such products exported out of the country, and in such cases only.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1893.	Tons.	Tons.	Tons.
Ashes, pot and pearl	23		
Barley	600	1,110	16,751
Bricks		1,251	
Corn	278,564	5,752	156,776
Coal		17,944	2,123
Flour	5,514		6,588
Fish			5
Furniture			6
Horses	1	1	2
Iron, pig			100
" all other			2
Meal, all kinds		1,025	36,352
Meats, other than pork			1
Oats	9,761	1,090	20,313
Pork			52
Rye	3,669	1	1
Salt		286	
Seeds, all kinds			16
Wheat	209,212	17,602	29,117
Whisky, beer, &c	1		83
Wool			80
Merchandise not enumerated	4	2	1,693
Brrrels, empty			9
Firewood (in rafts)		15	
Lumber, sawn, in vessels	667	1,981	123,665
Shingles			13
Square timber		45,605	
Staves and headings, barrel		12	
" pipe		7	
" West India		53	
Total	503,016	93,737	393,748

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1893.

The tolls were, however, reduced by Order in Council of 13th February, 1893, as follows:—"For the season of 1893, the canal toll for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals."

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1894.	Tons.	Tons.	Tons.
Apples	50		
Ashes	19		
Barley	258		28,095
Bricks		552	
Coal		13,818	727
Corn	60,661	3,243	105,329
Dye woods and dye stuffs		4	2
Fish			5
Flour	16,503	41	16,880
Furniture	2	3	
Horses	1	2	4
Iron, pig	195	2,170	
" all other	1	183	
Meals	4		60,390
Nails			57
Oats	175	107	27,621
Oil cake	29		
" in barrels		27	
Pork	717		56
Salt		133	
Spirits, beer, &c		3	
Sugar			52
Wheat	212,557	13,349	42,934
White lead	16		
Wool			1,484
Merchandise not enumerated	314		2,889
Barrels, empty		16	
Sawn lumber, in vessels	683		86,545
Square timber "		47,030	
Woodenware	6		
Total	292,191	80,681	373,070

There was no rebate allowed of the Welland Canal toll on grain passed down to Montreal during the season of navigation in 1894.

The tolls were, however, reduced by Order in Council of 16th April, 1894, as follows:—For the season of 1894, the canal tolls for the passage of the following food products: wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, for passage eastward through the Welland Canal be ten cents per ton; and for passage eastward through the St. Lawrence Canals only, ten cents per ton, payment of the said toll of ten cents a ton for passage through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1895.	Tons.	Tons.	Tons.
Apples	28		
Ashes	34	15	
Barley	959		7,730
Bricks		651	
Coal		7,809	603
Corn	70,235	2,912	91,743
Flour	30,916	1,824	10,265
Furniture		12	2
Glass		1	
Horses	1	1	
Hides, skins, &c			8
Iron, railway			181
" pig	79	1,994	
" all other	1,766	1,408	214
Lard and lard oil			6
Meal, all kinds	65		46,316
Meats other than pork			30
Molasses	100		
Oats	1,654	123	16,442
Oil, in barrels	6	41	30
Pork			87
Paint	2		
Salt		36	
Stone, for cutting		430	
Seeds, all kinds			14
Steel	394		462
Sugar			59
Spirits, beer, &c	101	84	15
Tobacco		16	
Wheat	*158.643	29,061	17,908
Wool			1,536
Merchandise not enumerated	558	1,302	7,656
Barrels, empty	1		
Sawn lumber, in vessels	1,117	492	43,286
Railway ties "			1,942
Shingles		19	
Square timber, in vessels		63,715	500
Total	266,659	111,946	247,035

* Of this amount 3,469 tons came down to Kingston in 1894, were stored there and taken to Montreal in 1895; and 245 tons came down to Ogdensburg in 1894, stored there, and transhipped to Montreal in 1895.

SESSIONAL PAPER No. 20

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1896.	Tons.	Tons.	Tons.
All other (vegetable)	29		
Apples	†1,263		
Ashes	94		
Barley	240		11,128
Cement and water-lime	12		
Coal		11,742	1,255
Corn	182,230	19,688	118,426
Crockery	5		
Fish		2	
Flour	11,964	13,846	16,224
Furniture		3	
Glass	9	3	
Hay, pressed		563	
Hides, skins, &c			41
Horses	1	1	3
Iron, railway		1,192	
" pig	5	1,559	
" all other	2,020	1,725	
Lard and lard oil			1,348
Meal, all kinds		500	46,456
Molasses	167		
Oats	12,373	1,454	14,351
Oil, in barre's	23		1,005
Pease	3,020	10	
Pork	1		390
Rags	4		
Rye	8,323	647	
Salt		80	
Seeds, all kinds	20		78
Steel	542	11,317	498
Sugar	1		165
Tobacco		1	
Wheat	*254,763	51,587	16,467
Wool		8	900
Merchandise not enumerated	376	54	3,990
Barrels, empty			10
Firewood, in vessels			165
Sawn lumber "	657	1,286	78,397
Shingles		94	40
Square timber, in vessels		55,588	
" rafts	1,200		
Woodenware			12
Total	479,442	172,950	311,349

† 523 tons of this quantity of apples paid full tolls by sections on the Welland Canal, and consequently does not appear on the Welland Through Statement.

* Of this amount 5,290 tons came down to Kingston in 1895, were stored there, and transhipped to Montreal in 1896.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1897.	Tons.	Tons.	Tons.
Agricultural products, vegetable			32
Ashes	133		
Barley			14,173
Bricks		739	845
Clay, lime and sand	38	430	
Coal		9,803	
Corn	*264,396	11,103	115,689
Flax seed	3,293	169	
Flour	1,029	211	7,237
Furniture	1	5	
Glass	53	9	
Hay, pressed			301
Horses	1	1	3
Hides and skins, &c			23
Iron, railway		6,241	965
" pig		2,828	
" all other	7,564	6,143	
Lard and lard oil			1,444
Meal, all kinds		699	41,644
Molasses	9		
Oats	*6,847	3,046	15,233
Oil, in barrels	112	51	198
Pease	*2,078	3	
Pork			243
Rye	8,435	48	
Salt	216		
Stone for cutting		330	
Seeds, all kinds			299
Steel	375	4,680	
Sugar			31
Spirits, beer, &c	46		
Tobacco	51		
Wheat	*278,498	†39,057	12,661
Wool			197
Merchandise not enumerated	1,214	347	3,591
Firewood, in vessels		12	
Hoops	257	8	
Lumber, sawn, in vessels	478	1,158	69,710
Masts " "			403
" " rafts		5	
Railway ties, in vessels		999	
Split posts "		4	
Timber, square "	1,207	81,117	1,040
Staves and headings, salt barrel	4,716		
Woodenware			1
Total	581,047	169,246	285,963

* Of this quantity of corn 573 tons came down to Ogdensburg and Prescott in 1896, were stored there, and transhipped to Montreal in 1897.

* Of this quantity of oats 50 tons came down to Prescott in 1896 and passed down to Montreal in 1897, and 170 tons passed through on St. Catharines Reports; 136 tons of which passed down to Montreal.

* Of this quantity of pease 230 tons were transhipped and passed through on St. Catharines Reports.

† Of this quantity of wheat 624 tons were transhipped and passed through on St. Catharines Reports and 7,072 tons came down to Kingston and Prescott in 1896 and passed down to Montreal in 1897.

† Of this quantity, 1,079 tons were transhipped and passed through on St. Catharines Reports.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1898.	Tons.	Tons.	Tons.
Agricultural products, vegetable	56		
Ashes	73		
Barley	3,966	1,417	6,909
Cement and water-lime			300
Clay, lime and sand	52	1	
Coal		4,536	759
Corn	*310,498	13,338	116,317
Flax seed	5,687	9	
Flour	653		4,212
Furniture			2
Glass	75		
Horses	4		
Iron, railway		674	770
" pig		4,187	
" all other	6,217	257	324
" ore		13,433	
Lard and lard oil			3,671
Meal, all kinds			22,626
Molasses	56		
Oats	3,975	625	12,729
Oil, in barrels	1,141	15	119
Paint			3
Pease	260		45
Pork			1,271
Rye	*16,133	39	
Salt	144	644	
Seeds, all kinds			44
Spirits, beer, &c	4		34
Steel	1,351	3,122	2,951
Stone for cutting		554	
Tallow			359
Wheat	*184,706	15,860	8,612
Wool			89
Merchandise, not enumerated	866	25	3,828
Firewood, in vessels		747	
Lumber, sawn, in vessels	3,065	2,840	72,897
Railway ties		190	
Shingles		11	
Square timber	329	48,369	
Total	539,305	110,893	258,871

* Of this quantity of corn 2,340 tons came down to Ogdensburg and Prescott in 1897, were stored there, and transhipped to Montreal in 1898.

* Of this quantity of rye 45 tons came down to Prescott in 1897, were stored there, and transhipped to Montreal in 1898.

* Of this quantity of wheat 4,165 tons came down to Kingston in 1897, were stored there and transhipped to Montreal in 1898.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1899.	Tons.	Tons.	Tons.
Agricultural products, vegetable	32		
Ashes	58		
Barley	596		1,828
Clay, lime and sand	15		
Coal		8,276	2,293
Corn	*150,999	16,594	43,854
Flax seed	200		
Flour	4,229	1,889	4,404
Furniture		2	7
Glass	16		
Horses	1		
Iron, all other	5,063		294
Iron ore		26,125	
Lard and lard oil		3	864
Meal, all kinds			18,198
Molasses	159		8
Nails	1	1	11
Oats	*10,250	1	13,139
Oil, in barrels	7,143	2	254
Paint			2
Pork			343
Rags			1
Rye	923		
Salt	183	479	549
Seeds, all kinds			11
Spirits, beer, &c	74	71	168
Steel	3,000	1,562	11,802
Stone for cutting		429	
Tallow			201
Tobacco	96		
Wheat	*16,978	23,602	9,190
Wool			130
Merchandise, not enumerated	518	126	6,219
Barrels, empty	1		
Firewood, in vessels		27	
Hop poles		100	
Lumber, sawn, in vessels	924	4,583	57,695
Masts and spars "		3	
Railway ties "		74	1,273
Shingles		50	
Square timber, in vessels	26	24,959	
Total	354,485	108,958	172,738

*Of this quantity of corn 7,443 tons came down to Ogdensburg and Prescott in 1898, were stored there, and transhipped to Montreal in 1899.

*Of this quantity of oats 187 tons passed down on Dunnville pass to Montreal.

*Of this quantity of wheat 6,447 tons passed down to Kingston in 1898, were stored there, and transhipped to Montreal in 1899.

U.—Comparative Statement of the Quantity of Through Freight passed down th Welland Canal, &c.—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1900.	Tons.	Tons.	Tons.
Agr cultural products, vegetable		1	6
Ashes	25	15	
Barley	1,288	563	1,598
Cement and water-lime			18
Clay, lime and sand	15		
Coal		1,360	992
Corn	*109,359	9,844	44,306
Flour	1,595	990	6,371
Furniture	1		
Glass, all kinds	6	4	
Horses			4
Iron, pig	508	1,284	
" all other	4,292	1,044	714
" ore		58,400	
Lard and lard oil			1,588
Meal (all kinds)			14,244
Molasses		21	57
Oats	*8,925	348	30,840
Oil, in barrels	15,647	4,288	17
Oil-cake			2,705
Paint		2	36
Pease	115		4
Pitch and tar		24	
Pork			117
Rye	3,078	160	300
Salt		467	
Soda ash		15	
Steel	5,420		2,601
Sugar			154
Tallow			631
Wheat	*121,896	6,610	7,541
White lead	16		
Merchandise not enumerated	103	154	7,899
Barrels, empty	182	407	5
Firewood, in vessels		1,143	
Lumber, sawn, in vessels	15,760	5,701	55,128
Shingles		90	
Square timber, in vessels		26,267	
Staves		3	
Total	288,231	113,205	177,876

*Of this quantity of corn 751 tons came to Ogdensburg, Kingston and Prescott in 1899, were stored there, and transhipped to Montreal in 1900.

*Of this quantity of oats 585 tons came down to Ogdensburg, Kingston and Prescott in 1899, were stored there, and transhipped to Montreal in 1900.

*Of this quantity of wheat 10,835 tons came down to Ogdensburg, Kingston and Prescott in 1900, were stored there, and transhipped to Montreal in 1900.

U.—Comparative Statement of the Quantity of Through Freight passed down the Welland Canal, &c.—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports.
1901.	Tons.	Tons.	Tons.
Agricultural implements	1,785		
" products, vegetable			19
Ashes	3		
Barley			7,119
Coal		2,322	357
Corn	14,319	4,828	48,609
Flax seed	4,965	2	
Flour	1,400	218	15,768
Furniture	5		
Glass (all kinds)	1		
Hay, pressed	246		
Iron, pig		1,790	
" all other	1,178	589	
" ore		98,452	
Lard and lard oil	1,155	827	525
Meal (all kinds)	35		13,981
Meats	114	7	
Molasses		17	
Oats	1,584	853	25,704
Oil (in barrels)	14,987	2,971	22
Oil-cake	1,083	113	219
Paint	17	6	
Pitch and tar		17	
Pork	34	970	10
Rye	2,961		
Salt	50	165	105
Soda ash	4		
Spirits, &c	32		
Sugar	112		448
Tallow			119
Tobacco, raw	23		
Wheat	*132,702	8,051	9,057
Wool			3
Merchandise not enumerated	2,420	1,395	966
Barrels, empty	66		216
Firewood, in vessels		1,287	
Lumber, sawn, in vessels	2,635	3,412	51,931
Mast spars, &c., "		13	
Shingles		18	
Square timber, in vessels	504	14,023	
Total	184,420	142,346	175,169

*Of this quantity 9,324 tons came to Ogdensburg in 1900, were stored there, and transhipped to Montreal in 1901.

U.—STATEMENT showing the quantity of Through Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

RECAPITULATION.

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1890.	Tons.	Tons.	Tons.
Barley			6,519
Corn	150,999	11,584	180,842
Oats	879	73	27,030
Pease			14
Rye	1,120	1	
Wheat	75,515	5,241	31,527
Total grain	228,513	16,899	‡245,932
Other articles	7,459	127,502	81,901
Total	235,972	144,301	327,833
1891.			
Barley			8,113
Corn	52,539	5,144	127,494
Oats			52,823
Peas	390		
Rye	64,978	969	
Wheat	159,785	692	32,097
Total grain	277,692	6,805	220,527
Transhipped at Ogdensburg to Montreal	+17,817		−17,817
Total	295,509		202,710
Other articles	14,084	47,510	96,682
Total	309,593	54,315	299,392
1892.			
Barley			6,433
Corn	53,689	7,637	131,222
Oats			36,935
Pease	524		
Rye	9,119	273	
Wheat	194,281	5,373	26,950
Total grain	257,613	13,283	201,540
Quantity taken to Ogdensburg and transhipped to Montreal	*4,341	4,341	
Total	261,954	8,942	201,540
Other articles	5,531	60,944	128,863
Total	267,485	69,886	330 403
1893.			
Barley	600	1,110	16,751
Corn	278,564	5,752	156,776
Oats	9,761	1,090	20,313
Pease			
Rye	3,669	1	1
Wheat	209,212	17,602	29,117
Total grain	501,806	25,555	222,958
Other articles	6,210	68,182	170,790
Total	508,016	93,737	393,748

‡ Of this quantity of grain 16,433 tons were transhipped at Ogdensburg to Montreal.

* This quantity of wheat was taken from Kingston to Ogdensburg and stored in elevators and subsequently transhipped to Montreal.

U.—STATEMENT showing the quantity of Through Freight passed down the Welland Canal to Canadian Ports, &c.—*Continued.*

RECAPITULATION—*Continued.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1894.	Tons.	Tons.	Tons.
Barley	258		28,095
Corn	60,661	3,243	105,329
Oats	175	107	27,621
Pease			
Rye			
Wheat	212,557	13,349	42,934
Total grain	273,651	16,699	203,979
Other articles	18,540	63,982	169,091
Total	292,191	80,681	373,070
1895.			
Barley	959		7,730
Corn	70,265	2,912	91,743
Oats	1,654	123	16,442
Rye			
Wheat	†158,643	29,061	17,908
Total grain	231,491	32,696	133,823
Other articles	35,168	79,850	113,212
Total	266,659	111,946	247,035
1896.			
Barley	240		11,128
Corn	182,330	19,688	118,426
Oats	12,373	1,454	14,351
Pease	3,020	10	
Rye	8,323	647	
Wheat	254,763	51,587	16,467
Total grain	‡461,049	73,386	160,372
Other articles	18,393	99,564	150,977
Total	749,442	172,950	311,349
1897.			
Barley			14,173
Corn	264,396	11,103	115,689
Oats	6,847	3,046	15,233
Pease	2,678	3	
Rye	8,435	48	
Wheat	278,498	39,057	12,661
Total grain	*560,254	53,257	157,756
Other articles	20,793	114,989	122,207
Total	581,047	166,246	285,963

† Of this amount, 3,469 tons came down to Kingston in 1894, was stored there, and taken to Montreal in 1895, and 245 tons came down to Ogdensburg in 1894, was stored there, and transhipped to Montreal in 1895.

‡ Of this amount, 5,290 tons came down to Kingston in 1895, was stored there, and transhipped to Montreal in 1896.

* Of this quantity, 7,695 tons came down in 1896 and were transhipped to Montreal in 1897.

U.—Statement showing the quantity of Through Freight passed down the Welland Canal to Canadian Ports, &c.—*Concluded.*

RECAPITULATION—*Concluded.*

Articles.	Quantity passed down to Montreal.	Quantity passed down to Canadian Ports between Port Dalhousie and Cornwall.	Quantity passed down to United States Ports on the south side of Lake Ontario.
1898.	Tons.	Tons.	Tons.
Barley	3,960	1,417	6,909
Corn	310,498	13,338	116,317
Oats	3,975	625	12,729
Pease	260		45
Rye	16,133	39	
Wheat	184,706	15,860	8,612
Total grain	*519,532	31,279	144,612
Other articles	19,773	79,614	114,259
Total	539,305	110,893	258,871
1899.			
Barley	596		1,828
Corn	150,999	16,594	43,854
Oats	10,250	1	13,139
Pease			
Rye	923		
Wheat	169,978	24,602	9,190
Total grain	**332,746	40,197	68,011
Other articles	21,739	68,761	104,727
Total	354,485	108,958	172,732
1900.			
Barley	1,288	563	1,598
Corn	109,359	9,844	44,306
Oats	8,925	348	30,840
Pease	115		4
Rye	3,078	160	300
Wheat	121,896	6,610	7,541
Total grain	***244,661	17,525	84,589
Other articles	43,570	95,680	93,287
Total	288,231	113,205	177,876
1901.			
Barley			
Corn	14,319	4,828	48,609
Oats	1,584	853	25,704
Pease			
Rye	2,961		
Wheat	132,702	8,051	9,057
Total grain	†151,566	13,732	83,370
Other articles	32,854	128,614	91,799
Total	184,420	142,346	175,169

* Of this quantity, 6,550 tons came down in 1897 and were transhipped to Montreal in 1898.
** Of this quantity, 14,077 tons came down in 1898 and were transhipped to Montreal in 1899.
*** Of this quantity, 12,171 tons came down in 1899 and were transhipped to Montreal in 1900.
† Of this quantity, 9,324 tons came down in 1900 and were transhipped to Montreal in 1901.

COMPARATIVE STATEMENT showing the quantity of Vegetable Food and Lumber passed through the Canals during the Years ended December 31, 1900 and 1901.

	Vegetable Food.								Lumber.	Total.
	Flour.	Wheat.	Corn.	Barley.	Oats.	Rye.	Buck-wheat.	All other.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Welland Canal, 1900	10,968	137,800	163,509	4,035	41,055	3,538	.....	14,815	77,470	453,190
" 1901	18,994	151,586	67,756	7,119	28,485	2,961	.....	14,024	60,018	350,943
Increase	8,026	13,786	.....	3,084	.....	.....	.....	.....	.....	.....
Decrease	.....	.....	95,753	.....	12,570	577	.....	791	17,452	102,247
St. Lawrence Canals, 1900	13,277	276,229	288,169	21,096	52,983	12,544	1,159	16,432	59,543	741,432
" 1901	13,891	359,564	108,784	18,051	27,109	13,789	872	8,499	29,380	579,939
Increase	614	83,335	.....	.....	.....	1,245	.....	.....	.....	.....
Decrease	.....	.....	179,385	3,045	25,874	.....	287	7,933	30,163	161,493
Chambly Canal, 1900	524	.....	.....	48	3,867	.....	.....	576	39,605	44,620
" 1901	494	.....	.....	21	2,148	.....	.....	506	30,575	33,744
Increase	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Decrease	30	.....	.....	27	1,719	.....	.....	70	9,030	10,876
Ottawa Canals, 1900	11	.....	.....	2	1,752	3	117	242	302,132	304,259
" 1901	56	.....	.....	.....	1,132	6	40	287	299,475	300,996
Increase	45	.....	.....	.....	.....	3	.....	45	.....	.....
Decrease	.....	.....	.....	2	620	.....	77	.....	2,657	3,263
Rideau Canal, 1900	470	313	147	.....	670	28	63	287	29,728	31,706
" 1901	442	465	64	56	458	.....	.....	187	16,936	18,608
Increase	.....	152	.....	56	.....	.....	.....	.....	.....	.....
Decrease	28	.....	83	.....	212	28	63	100	12,792	13,098

St. Peter's Canal, 1900	1,851		8	9	2,257			3,959	15,261	23,345
" 1901	1,527			5	2,518			4,994	16,391	25,435
Increase					261			1,035	1,130	2,090
Decrease	324		8	4						
Trent Valley Canals, 1900		627							1,948	2,575
" 1901		544					22	3	2,590	3,159
Increase							22	3	642	584
Decrease		83								
Murray Canal, 1900	10	1,240		332		664	128	721	372	3,467
" 1901	5	914		688	19	868	3	719	296	3,512
Increase				356	19	204				45
Decrease	5	326					125	2	76	
Sault Ste. Marie Canal, 1900	72,029	278,761	9,975	2,520	2,403	1,148		1,726	12,408	380,970
" 1901	137,407	289,186	29,188	1,759	12,693	3,374		246	20,990	494,843
Increase	65,378	10,425	19,213		10,290	2,226			8,582	113,873
Decrease				761				1,480		
Total Increase	73,676	107,289				3,073				
Total Decrease			256,016	343	30,425		530	9,293	61,816	174,385

Total for year 1900 1,985,564
" 1901 1,811,179

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

CANAL

COMPARATIVE STATEMENT for years

	January.	February.	March.	April.	May.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Welland Canal, 1900				4,958 86	17,311 23
" 1901				2,284 72	9,436 33
Increase					
Decrease				2,674 14	7,874 90
St. Lawrence Canals, 1900				1,001 53	14,417 71
" 1901				358 76	17,143 03
Increase					2,725 32
Decrease				642 77	
Chambly Canal, 1900				8 91	3,946 01
" 1901				5 95	3,505 72
Increase					
Decrease				2 96	440 29
Ottawa Canals, 1900				4 37	3,569 35
" 1901				125 72	4,714 82
Increase				121 35	1,145 47
Decrease					
Rideau Canal, 1900					979 24
" 1901				34 75	441 68
Increase				34 75	
Decrease					537 56
St. Peter's Canal, 1900	27 55			96 61	303 92
" 1901	7 40			69 08	355 89
Increase					51 97
Decrease	20 15			27 53	
Trent Valley Canals, 1900				33 44	49 66
" 1901		0 25		1 20	35 57
Increase		0 25			
Decrease				32 24	14 09
Murray Canal, 1900				8 65	68 69
" 1901				9 33	109 08
Increase				0 68	40 39
Decrease					
Sault Ste. Marie Canal, 1900			56 51		
" 1901					
Increase					
Decrease			56 51		
Total increase		0 25			
Total decrease	20 15		56 51	3,222 86	4,903 69

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

SESSIONAL PAPER No. 20

REVENUE.

ended December 31, 1900–1901.

June.	July.	August.	September.	October.	November.	December.	Total.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
14,810 17	13,610 07	15,851 41	14,518 43	10,840 60	10,145 40	2,247 63	104,203 80
11,808 51	13,249 12	12,889 17	10,828 85	13,445 91	11,160 49	1,836 24	86,939 34
.....	.....	.....	.....	2,605 31	1,015 09	.....	.....
3,001 66	360 95	2,962 24	3,689 58	.....	.....	411 39	17,354 46
14,226 39	16,756 62	17,305 50	14,064 77	13,185 51	12,225 70	189 11	103,372 84
17,083 88	18,638 47	17,793 03	12,933 59	12,375 05	7,319 86	18 50	103,664 17
2,857 49	1,881 85	487 53	.....	.....	.....	.....	291 33
.....	.....	.....	1,131 18	810 46	4,905 84	170 61	.....
3,434 92	4,121 12	4,344 89	3,324 84	3,073 19	1,954 10	12 37	24,220 35
3,632 92	5,027 25	4,066 02	2,705 42	3,821 93	2,115 31	.....	24,874 52
198 09	906 13	.....	.....	748 74	161 21	.....	654 17
.....	.....	284 87	619 42	.....	.....	12 37	.....
3,411 47	3,900 07	4,446 61	3,837 16	4,128 26	2,327 99	.....	25,625 28
5,075 47	3,493 15	3,764 92	3,007 78	5,144 14	2,336 44	.....	25,662 14
1,664 00	.....	.....	.....	.....	8 45	.....	37 16
.....	406 92	681 69	829 38	984 12	.....	.....	.....
1,344 90	1,340 91	912 19	750 75	592 92	509 96	7 34	6,438 21
489 86	755 85	1,131 84	658 23	472 06	376 67	.....	4,360 94
.....	.....	219 65	.....	.....	.....	.....	.....
855 04	585 06	.....	92 52	120 86	133 29	7 34	2,077 27
389 55	517 69	511 26	301 68	332 84	337 81	236 74	3,055 65
376 11	449 37	569 25	485 55	437 84	322 97	225 66	3,299 12
.....	.....	57 99	183 87	105 00	.....	.....	243 47
13 44	68 32	.....	.....	.....	14 84	11 08	.....
169 18	218 96	256 80	192 10	187 53	115 14	1 00	1,223 81
138 43	247 98	254 52	153 80	161 45	106 64	.....	1,099 84
.....	29 02	.....	.....	.....	.....	.....	.....
30 75	.....	2 28	38 30	26 08	8 50	1 09	123 97
86 82	149 10	197 53	130 77	118 69	69 55	.....	829 80
164 17	189 37	207 95	173 12	138 48	57 70	.....	1,049 20
77 35	40 27	10 42	42 35	19 79	.....	.....	219 40
.....	.....	.....	.....	.....	11 85	.....	.....
.....	.....	.....	.....	.....	.....	.....	56 51
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	56 51
895 95	1,436 02	.....	.....	1,537 32	.....	.....	.....
.....	.....	3,155 49	6,174 16	.....	3,889 57	613 79	18,166 68

Total for year 1900 ..... $269,116 25
Total for year 1901 ..... 250,949 57

RICHARD DEVLIN, *Compiler of Canal Statistics.*

APPENDIX A.

No. (A) 1.—General Statement showing the Quantity of each Article transported on the Welland Canal and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Toll.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl								3		3	3		0 60	0 60
Apples		5								5	5		0 13	0 13
Agricultural products not enumerated, vegetables						10				10	10		2 00	2 00
Agricultural products not enumerated, animal														
Agricultural implements								1,785		1,785	1,785		357 00	357 00
Barley						7,119				7,119	7,119		711 90	711 90
Bricks	78								78		78	1 48		1 48
Bones														
Brimstone														
Buckwheat														
Cement and water lime	240				149				389		389	44 85		44 85
Clay, lime and sand	60	50			365				435	50	475	55 89	2 50	58 39
Coal			398		46,345	357	58	2,322	46,801	2,679	49,480	9,360 20	535 80	9,896 00
Corn		916				55,531		11,309		67,756	67,755		6,775 60	6,775 60
Cattle			1						1		1	0 15		0 15
Cotton (raw)														
Crockery and earthenware	1								1		1	0 15		0 15
Dye wood and dye stuffs														
Fish					521				521		521	78 15		78 15
Flax and hemp														
Flour	41	1,551				17,168		218	41	18,937	18,978	0 78	3,516 01	3,516 79
Furniture	1		4		11	3		2	16	5	21	2 40	1 00	3 40
Gypsum														
Glass (all kinds)	35		26					1	61	1	62	5 62	0 20	5 82
Hay (pressed)								246		246	246		49 20	49 20
Hogs														
Horses	4								4		4	0 21		0 21

Hides and skins, horns and hoofs														
Ice														
Iron, railway					83				83		83	12 45		12 45
" pig	2,019							1,790	2,019	1,790	3,809	302 85	358 00	660 85
" all other	438				80			1,067	518	1,767	2,285	74 82	353 40	428 22
Iron ore		66,027						32,125		98,452	98,452		4,922 60	4,922 60
Kryolite chemical ore and other ore, except iron			1,035						1,035		1,035	51 75		51 75
Lard and lard oil						1,680		827		2,507	2,507		501 40	501 40
Meal, all kinds	3					14,016			3	14,016	14,019	0 28	2,803 20	2,803 48
Meats, other than pork						4		117		121	121		24 20	24 20
Marble					1,360				1,360		1,360	204 00		204 00
Manilla					557				557		557	83 55		83 55
Molasses	1				287			17	288	17	305	43 20	3 40	46 60
Nails	27								27		27	1 70		1 70
Oils	204	1,937				26,344			204	28,281	28,485	30 60	2,838 39	2,868 99
Oats	27	15,087			330	22		2,871	357	17,980	18,337	53 55	3,596 00	3,649 55
Oil cake						1,302		113		1,415	1,415		283 00	283 00
Pease														
Potatoes														
Pork			1			970		14	1	1,014	1,015	0 15	202 80	202 95
Paint	6				115			23	121	23	144	17 37	4 60	21 97
Pitch and tar	4							17	4	17	21	0 60	3 40	4 00
Rags	47								47		47	0 90		0 90
Rye								2,961		2,961	2,961		296 10	296 10
Flax seed								4,967		4,967	4,967		496 70	496 70
Rosin					25				25		25	3 75		3 75
Salt	7					105		215	7	320	327	0 14	64 00	64 14
Stone intended for cutting														
Stone, wrought														
Stone not suitable for cutting, unwrought	120	90							120	90	210	7 50	5 63	13 13
Seeds, all kinds	11								11		11	0 21		0 21
Sheep														
Soda ash	6				110			4	116	4	120	16 62	0 80	17 42
Steel	21				47				68		68	10 20		10 20
Sugar	73		1		4,368	448		112	4,442	560	5,002	660 41	112 00	772 41
Spirits, beer, &c.	55		21			1		31	76	32	108	11 27	6 40	17 67
Tobacco (raw)						23				23	23		4 60	4 60
Tallow					547	119			547	119	666	82 05	23 80	105 85
Tin					26				26		26	3 90		3 90
Turpentine														
Wheat	261	89,314				23,557		38,454	261	151,325	151,586	5 58	15,192 11	15,197 69
White lead														
Whiting														
Wool					5	3			5	3	8	0 75	0 60	1 35
All other goods and merchandise not enumerated	892	350	66		27,362	3,327		1,454	28,320	5,131	33,451	4,165 35	965 05	5,130 40
Bark														

No. (A) 1—General Statement showing the Quantity of each Article transported on Welland Canal, &c. —*Continued.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Toll.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Barrels, empty	34					282			34	282	316	3 33	56 24	59 57
Boat knees														
Floats														
Firewood, in vessels	417	5,003	756						1,173	5,053	6,176	54 25	261 43	315 68
Firewood, in rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	1,100	1,408		13,846		38,085		5,513	1,100	58,852	59,952	197 33	10,531 61	10,728 94
Lumber, sawn, in rafts		66								66	66		12 00	12 00
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts														
Railway ties, in vessel	683	26							683	26	709	55 75	0 25	56 00
Railway ties, in rafts														
Saw logs	406	1,546	166	150					572	1,696	2,268	14 41	89 17	103 58
Staves and headings, barrel				1,724						1,724	1,724		27 60	27 60
Staves and headings, pipe														
Staves and headings, West India														
Staves, salt barrel		44								44	44		3 52	3 52
Shingles	18	36							18	36	54	1 56	14 04	15 60
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels		15,00						13,027		14,527	14,527		2,177 98	2,177 98
Timber, square in rafts	1	17							1	17	18	0 25	0 49	0 74
Traverses														
Woodenware and wood partly manufactured	1				123				124		124	49 60		49 60
Total, freight paying tolls	7,342	184,973	2,475	15,720	82,816	190,476	58	122,635	92,691	513,804	606,495	15,771 86	58,188 45	73,960 31

Articles having paid full tolls on the St. Lawrence Canals, free:—											
Bricks	75		121					196		196	
Brimstone			5					5		5	
Cement and water lime	2,697		219					2,916		2,916	
Clay, lime and sand			2					2		2	
Fish			8					8		8	
Flour			16					16		16	
Glass (all kinds)	106		373		133			612		612	
Iron (railway)	748							748		748	
Iron (all other)	2,191		2,307		452			4,950		4,950	
Molasses			1					1		1	
Nails	625		50					675		675	
Oil (in barrels)	22		54		7			83		83	
Paint	8		7		54			69		69	
Pitch and tar	15		12					27		27	
Salt	69		6					75		75	
Seeds	18		284					302		302	
Soda ash	10		159					169		169	
Steel			3					3		3	
Sugar	85		725					810		810	
Tin	119		219					338		338	
Turpentine			1					1		1	
Vegetables			1					1		1	
Whiting			49					49		49	
White lead	8		3					11		11	
Whiskey	19		112					131		131	
All other goods and merchandise not enumerated	533		902		81			1,516		1,516	
Grand total freight	14,691	184,973	8,113	15,720	83,543	190,476	58	122,635	106,405	513,804	620,209

Total tolls on vessels		6,161 13	6,490 74	12,651 87
" passengers		71 50	76 80	148 30
" free goods	$2,057 10			
Total tolls		22,004 49	64,755 99	86,760 48
Fines				35 00
Damages				
Harbour dues				123 24
Other receipts				29 62
Total revenue exclusive of hydraulic rents				86,939 34

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 1.—General Statement showing the Quantity of each Article of Through Freight transported on the Welland Canal and the Amount of Tolls collected during the Season of Navigation in 1901.

Article.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl								3		3	3		60	60
Apples														
Agricultural products not enumerated, vegetables						10				10	10		2 00	2 00
Agricultural products not enumerated, animal														
Agricultural implements								1,785		1,785	1,785		357 00	357 00
Barley						7,119				7,119	7,119		711 90	711 90
Bricks														
Bones														
Brimstone														
Buckwheat														
Cement and water lime					149				149		149	22 35		22 35
Clay, lime and sand					365				365		365	54 75		54 75
Coal			398		46,315	357	58	2,322	46,801	2,679	49,480	9,360 20	535 80	9,896 00
Corn		916				55,531		11,309		67,756	67,756		6,775 60	6,775 60
Cattle			1						1		1	15		15
Cotton, raw														
Crockery and earthenware	1								1		1	15		15
Dye wood and dye stuffs														
Fish					521				521		521	78 15		78 15
Flax and hemp														
Flour						17,168		218		17,386	17,386		3,477 20	3,477 20
Furniture	1		4		11	3		2	16	5	21	2 40	1 00	3 40
Gypsum														
Glass, all kinds	8		26					1	34	1	35	5 10	0 20	5 30
Hay, pressed								246		246	246		49 20	49 20
Hogs														
Horses	1								1		1	15		15

Hides and skins, horns and hoofs															
Ice															
Iron, railway					83				83		83	12 45			12 45
" pig	2,019							1,790	2,019	1,790	3,809	302 85	358 00		660 85
" all other	416				80			1,767	496	1,767	2,263	74 40	353 40		427 80
Iron ore		66,027						32,425		98,452	98,452		4,922 60		4,922 60
Kryolite chemical ore and other ore, except iron			1,035						1,035		1,035	51 75			51 75
Lard and lard oil						1,680		827		2,507	2,507		501 40		501 40
Meal, all kinds						14,016				14,016	14,016		2,803 20		2,803 20
Meats, other than pork					4			117		121	121		24 20		24 20
Marble					1,360				1,360		1,360	204 00			204 00
Manilla					557				557		557	83 55			83 55
Molasses	1				287			17	288	17	305	43 20	3 40		46 60
Nails	9								9		9	1 35			1 35
Oats	204	1,797				26,344			204	28,141	28,345	30 60	2,814 10		2,844 70
Oil (in barrels)	27	15,087			330	22		2,871	357	17,980	18,337	53 55	3,596 00		3,649 55
Oil cake						1,302		113		1,415	1,415		283 00		283 00
Pease															
Potatoes															
Pork			1			979		44	1	1,014	1,015	0 15	202 80		202 95
Paint					115			23	115	23	138	17 25	4 60		21 85
Pitch and tar	4							17	4	17	21	0 60	3 40		4 00
Rags															
Rye								2,961		2,961	2,961		296 10		296 10
Flax seed								4,967		4,967	4,967		496 70		496 70
Rosin					25				25		25	3 75			3 75
Salt						105		215		320	320		64 00		64 00
Stone intended for cutting															
" wrought															
" not suitable for cutting, unwrought															
Seeds, all kinds															
Sheep															
Soda ash					110			4	110	4	114	16 50	0 80		17 30
Steel	21				47				68		68	10 20			10 20
Sugar	28		1		4,368	448		112	4,397	560	4,957	659 55	112 00		771 55
Spirits, beer, &c	54		21			1		31	75	32	107	11 25	6 40		17 65
Tobacco, raw						23				23	23		4 60		4 60
Tallow					547	119			547	119	666	82 05	23 80		105 85
Tin					26				26		26	3 90			3 90
Turpentine															
Wheat		87,799				23,557		38,454		149,810	149,810		14,981 00		14,981 00
White lead															
Whiting															
Wool					5	3			5	3	8	0 75	060		1 35
All other goods and merchandise not enumerated	223		56		27,362	3,327		1,454	27,641	4,781	32,422	4,146 15	956 20		5,102 35
Bark															

No. (A) 2.—General Statement showing the Quantity of each Articles of Through Freight transported on the Welland Canal and the Amount of Tolls collected during the Season of Navigation, in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Barrels empty	16					282			16	282	298	2 90	56 24	59 14
Boat knees														
Floats														
Fire wood, in vessels		1,287	756						756	1,287	2,043	50 40	85 80	136 20
" " rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	1,093	534		13,846		38,085		5,513	1,093	57,978	59,071	196 58	10,432 95	10,629 53
" " rafts														
Masts, spars, and telegraph poles, in vessels		13								13	13		2 00	2 00
Masts, spars, and telegraph poles, in rafts														
Railway ties, in vessels														
" " rafts														
Saw logs														
Staves and Headings, barrel														
" " pipe														
" " West India														
Staves, salt barrel														
Shingles		18								18	18		12 48	12 48
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels		1,500						13,027		14,527	14,527		2,177 98	2,177 98
" " rafts	1								1		1	0 25		0 25
Traverres														
Woodenware and wood partly manufactured	1				123				124		124	49 60		49 60
Total freight paying tolls	4,128	174,978	2,299	13,846	82,815	190,476	58	122,635	89,301	501,935	591,236	15,632 93	57,490 25	73,123 18

Articles having paid full tolls on the St. Lawrence Canals, free: —														
Bricks	75		121						196		196			
Brimstone			5						5		5			
Cement and water lime	2,697		219						2,916		2,916			
Clay, lime and sand			2						2		2			
Fish			8						8		8			
Flour			16						16		16			
Glass, all kinds	106		373		133				612		612			
Iron, railway	748								748		748			
Iron, all other	2,191		2,307		452				4,950		4,950			
Molasses			1						1		1			
Nails	625		50						675		675			
Oil, in barrels	22		54		7				83		83			
Paint	8		7		54				69		69			
Pitch and tar	15		12						27		27			
Salt	69		6						75		75			
Seeds	18		284						302		302			
Soda ash	10		159						169		169			
Steel			3						3		3			
Sugar	85		725						810		810			
Tin	119		219						338		338			
Turpentine			1						1		1			
Vegetables products			1						1		1			
Whiting			49						49		49			
White lead	8		3						11		11			
Whisky	19		112						131		131			
All other goods and merchandise not enumerated	533		902		81				1,516		1,516			
Gand total through freight	11,476	174,978	7,938	13,846	83,543	190,476	58	122,635	103,015	501,935	604,950			

Total tolls on vessels	6,000 61	6,309 89	12,310 50
" passengers	30 80	43 95	74 75
" free goods $2,057.10			
Total tolls	21,664 34	63,844 09	85,508 43

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 3.—General Statement showing the Quantity of each Article of Way Freight transported on the Welland Canal, and the Amount of Tolls Collected, during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl														
Apples		5								5	5		13	13
Agricultural products not enumerated, vegetables														
Agricultural products not enumerated, animal														
Agricultural implements														
Barley														
Bricks	78								78		78	1 48		1 48
Bones														
Brimstone														
Buckwheat														
Cement and water lime	240								240		240	22 50		22 50
Clay, lime and sand	60	50							60	50	110	1 14	2 50	3 64
Coal														
Corn														
Cattle														
Cotton (raw)														
Crockery and earthenware														
Dye wood and dye stuffs														
Fish														
Flax and hemp														
Flour	41	1,551							41	1,551	1,592	78	38 81	39 59
Furniture														
Gypsum														
Glass (all kinds)	27								27		27	52		52
Hay (pressed)														
Hogs														
Horses	3								3		3	06		06

Hides and skins, horns and hoofs														
Ice														
Iron, railway														
" pig														
" all other	22								2		22	42		42
Iron ore														
Kryolite chemical ore and other ore, except iron														
Lard and lard oil														
Meal, all kinds	3								3		3	28		28
Meats, other than pork														
Marble														
Manilla														
Molasses														
Nails	18								18		18	35		35
Oats		140								140	140		24 29	24 29
Oil (in barrels)														
Oil cake														
Pease														
Potatoes														
Pork														
Paint	6								6		6	12		12
Pitch and tar														
Rags	47								47		47	90		90
Rye														
Flax seed														
Rosin														
Salt	7								7		7	14		14
Stone intended for cutting														
" wrought														
" not suitable for cutting, unwrought	120	90							120	90	210	7 50	5 63	13 13
Seeds, all kinds	11								11		11	21		21
Sheep														
Soda ash	6								6		6	12		12
Steel														
Sugar	45								45		45	86		86
Spirits, beer, &c	1								1		1	02		02
Tobacco (raw)														
Tallow														
Tin														
Turpentine														
Wheat	261	1,515							261	1,515	1,776	5 58	211 11	216 69
White lead														
Whiting														
Wool														
All other goods and merchandise not enumerated	669	350	10						679	350	1,029	19 20	8 85	28 05
Bark														

No. (A) 3.—General Statement showing the Quantity of each Article of Way Freight transported on Welland Canal, &c.—*Continued.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Barrels empty	18								18		18	43		43
Boat knees														
Floats														
Fire wood, in vessels	417	3,716							417	3,716	4,133	3 85	175 63	179 48
" " rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	7	874							7	874	881	75	98 66	99 41
" " rafts		66								66	66		12 00	12 00
Masts, spars, and telegraph poles, in vessels														
Masts, spars, and telegraph poles, in rafts														
Railway ties, in vessels	683	13							683	13	696	53 75	25	54 00
" " rafts														
Saw logs	406	1,546	166	150					572	1,696	2,268	14 41	89 17	103 58
Staves and headings, barrel				1,724						1,724	1,724		27 60	27 60
Staves and headings, pipe														
Staves and headings, West India														
Staves, salt, barrel		44								44	44		3 52	3 52
Shingles	18	18							18	18	36	1 56	1 56	3 12
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels														
" " rafts		17								17	17		49	49
Traverses														
Woodenware and wood partly manufactured														
Total freight paying tolls	3,214	9,995	176	1,874					3,390	11,869	15,259	136 93	700 20	837 13

Total way tolls on vessels	160 52	180 85	341 37
" " passengers	40 70	32 85	73 55
Total way tolls	338 15	913 90	1,252 05

RICHARD DEVLIN,
Compiler of Canal Statistics.

Department of Railways and Canals,
Ottawa, September 2, 1902.

APPENDIX A—*Continued.*

No. (A) 4—General Statement showing the Quantity of each Article transported on the St. Lawrence Canals and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl	30	17	22						52	17	69	10 40	3 40	13 80
Apples	4	699							4	699	703	43	103 85	104 28
Agricultural products not enumerated, vegetables	776	1,408	1						777	1,408	2,185	50 29	207 64	257 93
" " animal	1,283	1,673							1,283	1,673	2,956	66 11	220 88	286 99
Agricultural implements	50	44							50	44	94	7 70	3 40	11 10
Barley	6	18,045							6	18,045	18,051	25	1,511 61	1,511 86
Bricks	8,957	16	121			15	26		9,104	31	9,135	456 44	1 18	457 62
Bones		16								16	16		1 44	1 44
Brimstone	80		5						85		85	12 38		12 38
Buckwheat	23	849							23	849	872	59	30 24	30 83
Cement and water lime	6,939	534	244			145	990	598	8,173	1,277	9,450	810 36	106 02	916 38
Clay, lime and sand	11,127	23,699	2			22	1,724		12,853	23,721	36,574	551 87	997 20	1,549 07
Coal		76,759			40	738		245,143	40	322,640	322,680	1 50	46,193 84	46,195 34
Corn	574	87,441			4	9		857	578	88,307	88,885	43 50	2,357 68	2,401 18
Cattle	40	382	1						41	382	423	1 96	28 64	30 60
Cotton (raw)														
Crockery and earthenware	81	96							81	96	177	14 60	16 15	30 75
Dye wood and dye stuffs	37	3					38		75	3	78	5 70	60	6 30
Fish	63	6	8						71	6	77	6 61	24	6 85
Flax and hemp	1								1		1	10		10
Flour	895	11,580	16						911	11,580	12,491	57 52	914 89	972 41
Furniture	511	1,495							511	1,495	2,006	92 57	273 85	366 42
Gypsum	1,390								1,390		1,390	18 33		18 33
Glass (all kinds)	784	77	516						1,300	77	1,377	255 88	9 15	265 03
Hay (pressed)	2,503	1,705							2,503	1,705	4,208	94 20	100 95	195 15
Hogs	10	22							10	22	32	40	1 67	2 07
Horses	282	506							282	506	788	15 08	31 65	46 73
Hides and skins, horns and hoofs	22	14	14						36	14	50	3 76	53	4 29
Ice														
Iron, railway	2,611	138							2,611	138	2,749	332 21	12 02	344 23

" pig	351	103					170		521	103	624	34 14	15 45	49 59
" all other	13,354	1,883	2,251					20	15,605	1,903	17,508	1,447 06	144 04	1,591 10
Iron ore														
Kryolite chemical ore and other ore, except iron		417								417	417		40 04	40 04
Lard and lard oil	174	263							174	263	437	20 83	34 79	55 62
Meal, all kinds	9	928							9	928	937	66	52 29	52 95
Meats, other than pork	5	6							5	6	11	42	90	1 32
Marble	4	1							4	1	5	76	05	81
Manilla	11								11		11	2 10		2 10
Molasses	355	144							355	144	499	51 76	9 80	61 56
Nails	1,090	520	150						1,240	520	1,760	239 77	43 55	283 32
Oats	937	24,588							937	24,588	25,525	24 30	1,107 78	1,132 08
Oil (in barrels)	833	685	189				11		1,033	685	1,718	188 81	81 95	270 76
Oil cake		1,395								1,395	1,395		68 00	68 00
Pease	66	6,745							66	6,745	6,811	1 71	625 06	626 77
Potatoes	6	7							6	7	13	41	53	94
Pork	195	420							195	420	615	19 20	24 44	43 64
Paint	253	255	95				17	2	367	257	622	68 21	20 50	88 71
Pitch and tar	229	201					212		441	201	642	48 30	17 55	65 85
Rags	171	68							171	68	239	34 09	13 50	47 59
Rye		10,828								10,828	10,828		672 87	672 87
Flax seed	1	17,216							1	17,216	17,217	03	431 06	431 09
Rosin	99	21					1,213		1,312	21	1,333	67 07	1 05	68 12
Salt	2,923	72	110				169		3,202	72	3,274	368 62	6 87	375 49
Stone intended for cutting	54	2,180					172		226	2,180	2,406	11 60	81 75	93 35
" wrought	223	17							223	17	240	20 54	1 75	22 29
" not suitable for cutting, unwrought	23	1,023							23	1,023	1,046	45	24 90	25 35
Seeds, all kinds	4,114	103	300						4,414	103	4,517	228 87	9 06	237 93
Sheep	6	89							6	89	95	31	6 74	7 05
Soda ash	162	23	147		12				321	23	344	63 90	2 65	66 55
Steel	756	44	4						760	44	804	78 21	4 93	83 14
Sugar	3,246	211	924				327		4,497	211	4,708	811 12	24 20	835 32
Spirits, beer, &c	368	194	127						495	194	689	76 99	32 05	109 04
Tobacco (raw)	6								6		6	60		60
Tallow	22	60							22	60	82	3 30	9 00	12 30
Tin	1,008	18	285						1,293	18	1,311	257 90	3 15	261 05
Turpentine	25	19					118		143	19	162	7 59	1 10	8 69
Wheat	196	225,714						952	196	226,666	226,862	4 90	7,028 65	7,033 55
White lead	84	20	4						88	20	108	17 19	1 00	18 19
Whiting	188	2	92						280	2	282	55 66	10	55 76
Wool														
All other goods and merchandise not enumerated	8,586	6,144	1,267		155	707	667	5	10,675	8,556	17,531	1,628 25	1,036 95	2,665 20
Bark														
Barrels, empty	367	153			2				369	153	522	30 90	14 29	45 19
Boat knees														
Floats	860								860		860	15 06		15 06
Fire wood, in vessels	2,094	6,717	120		180		537		2,931	6,717	9,648	48 95	159 67	208 62

No. (A) 4.—General Statement showing the Quantity of each Article transported on the St. Lawrence Canals, &c. *Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Fire wood, in rafts														
Hoops														
Hop poles	1	34							1	34	35	25	2 00	2 25
Lumber, sawn, in vessels	21,550	4,227							21,550	4,227	25,777	737 76	127 21	864 97
" " rafts	14	954							14	954	968	60	42 64	43 24
Masts, spars, and telegraph poles, in vessels														
Masts, spars, and telegraph poles, in rafts	70	22,878							70	22,878	22,948	1 75	571 95	573 70
Railway ties, in vessels		4								4	4		14	14
" " rafts		184								184	184		7 35	7 35
Saw logs														
Staves and headings, barrel														
" " pipe														
" " West India														
Staves, salt barrel														
Shingles	1	96							1	96	97	15	16 34	16 49
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels	185	540							185	540	725	2 38	7 34	9 72
" " rafts	1,060	3,828							1,060	3,828	4,888	26 50	99 20	125 70
Traverses		60								60	60		75	75
Woodenware and wood partly manufactured	54	47							54	47	101	18 00	9 30	27 30
Total freight paying tolls	105,468	569,573	7,015		393	1,636	6,391	247,577	119,267	818,786	938,053	9,678 67	65,866 95	75,546 62
Free articles having paid full tolls on Welland Canal														
Agricultural implements						278		1,507		1,785	1,785			
Ashes								3		3	3			
Corn		10,625						9,274		19,899	19,899			
Flax seed		4,965								4,965	4,965			
Flour		622						778		1,400	1,400			

Furniture						5			5	5	
Glass							1		1	1	
Hay, pressed							246		246	246	
Iron, all other		55					1,123		1,178	1,178	
Lard and Lard oil						606	549		1,155	1,155	
Meals							35		35	35	
Meats (all kinds)						2	112		114	114	
Merchandise		5				6	2,409		2,420	2,420	
Oats		1,584							1,584	1,584	
Oil cake							1,083		1,083	1,083	
Oils		12,686					2,301		14,987	14,987	
Paint		15					2		17	17	
Pork							34		34	34	
Rye		1,910					1,051		2,961	2,961	
Salt							50		50	50	
Soda ash		4							4	4	
Sugar							112		112	112	
Tobacco							23		23	23	
Wheat		118,464					14,238		132,702	132,702	
Whiskey and (all other spirits)						31	1		32	32	
Barrels (empty)							66		66	66	
Lumber sawn (in vessels)		1,978				429	228		2,635	2,635	
Square timber (in vessels)		504							504	504	
Coal	70,447		45			6,326		76,818		76,818	
Free articles for Canal Construction, O.C. 1884.											
Coal		723				129	2,573		3,425	3,425	
Grand total, freight	175,915	723,713	7,060		393	3,122	12,717	285,376	196,085	1,012,211	1,208,296

Total tolls on vessels		9,409 87	7,884 72	17,294 59
" " passengers		1,239 32	3,197 37	4,436 69
" " free goods	$25,733.62			
Total tolls		20,327 86	76,949 04	97,276 90
Fines				75 00
*Damages				
Wharfage and storoge				1,421 65
Other receipts				4,890 62
Total revenue, exclusive of hydraulic rents				$103,664 17

*Amount of damages not included in above, $508.15

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 5.—General Statement showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl	30	17	22						52	17	69	10 40	3 40	13 80
Apples		689								689	689		103 35	103 35
Agricultural products not enumerated, vegetables	172	1,385	1						173	1,385	1,558	25 95	206 75	232 70
Agricultural products not enumerated, animal	18	1,323							18	1,323	1,341	2 70	198 45	201 15
Agricultural implements		8								8	8		1 60	1 60
Barley		14,139								14,139	14,139		1,413 90	1,413 90
Bricks	531		121						652		652	97 80		97 80
Bones		3								3	3		0 45	0 45
Brimstones	75		5						80		80	12 00		12 00
Buckwheat		120								120	120		12 00	12 00
Cement and water lime	3,464	188	244						3,708	188	3,896	556 20	28 20	584 40
Clay, lime and sand	312	75	2						314	75	389	47 10	11 25	58 35
Coal		70,463						227,782		298,245	298,245		44,732 55	34,732 55
Corn		1,805								1,805	1,805		180 50	180 50
Cattle														
Cotton (raw)														
Crockery and earthenware	29	75							29	75	104	5 80	15 00	20 80
Dye wood and dye stuffs	1	3							1	3	4	0 20	0 60	0 80
Fish	16		8						24		24	3 60		3 60
Flax and hemp														
Flour	6	3,440	16						22	3,440	3,462	3 30	516 00	519 30
Furniture	367	1,287							367	1,287	1,654	73 40	257 40	330 80
Gypsum														
Glass (all kinds)	651	34	516						1,167	34	1,201	233 40	6 80	240 20
Hay (pressed)														
Hogs														
Horses	1	58							1	58	59	0 15	8 70	8 85

Hides and skins, horns and hoofs			14						14		14	2 10		2 10
Ice															
Iron, railway	1,855	23							1,855	23	1,878	278 25	3 45	281 70
" pig	122	103							122	103	225	18 30	15 45	33 75
" all other	5,093	550	2,251					20	7,344	570	7,914	1,101 60	85 50	1,187 10
Iron ore															
Kyryolite chemical ore and other ore, except iron		110								110	110		5 50	5 50
Lard and lard oil	72	221							72	221	293	10 80	33 45	43 95
Meal, all kinds		53								53	53		7 95	7 95
Meats, other than pork		6								6	6		0 90	0 90
Marble															
Manilla	1								1		1	0 20		0 20
Molasses	3	17							3	17	20	0 60	3 40	4 00
Nails	861	116	150						1,011	116	1,127	202 20	23 20	225 40
Oats		6,309								6,309	6,309		630 90	630 90
Oil (in barrels)	599	314	189						788	314	1,102	157 60	62 80	220 40
Oil cake															
Pease		6,084								6,084	6,084		608 40	608 40
Potatoes		1								1	1		0 15	0 15
Pork		35								35	35		5 25	5 25
Paint	200	49	95					2	295	51	346	59 00	10 20	69 20
Pitch and tar	121	50							121	50	171	24 20	10 00	34 20
Rags	160	67							160	67	227	32 00	13 40	45 40
Rye		5,362								5,362	5,362		536 20	536 20
Flax seed		8								8	8		0 80	0 80
Rosin	7								7		7	1 40		1 40
Salt	1,257	36	113						1,370	36	1,406	205 50	5 40	210 90
Stone intended for cutting															
" wrought		6								6	6		1 20	1 20
" not suitable for cutting, unwrought		75								75	75		6 00	6 00
Seeds, all kinds	251	46	300						551	46	597	82 65	6 90	89 55
Sheep															
Soda ash	159	10	147		12				318	10	328	63 60	2 00	65 60
Steel	346	29	4						350	29	379	52 50	4 35	56 85
Sugar	2,521	91	924						3,445	91	3,536	689 00	18 20	707 20
Spirits, beer, &c	49	148	127						176	148	324	35 20	29 60	64 80
Tobacco (raw)															
Tallow	22	60							22	60	82	3 30	9 00	12 30
Tin	965	15	285						1,250	15	1,265	250 00	3 00	253 00
Turpentine	2	1							2	1	3	0 40	0 20	0 60
Wheat		17,096						952		18,048	18,048		1,804 80	1,804 80
White lead	61		4						65		65	13 00		13 00
Whiting	181		92						273		273	54 60		54 60
Wool															
All other goods and merchandise not enumerated	4,951	4,368	1,261						6,212	4,368	10,580	1,242 40	873 60	2,116 00
Bark															

No. (A) 5.—General Statement showing the Quantity of each Article of Through Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1901.—*Continued.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, Up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
											$ cts.	$ cts.	$ cts.	$ cts.
Barrels, empty	61	1							61	1	62	10 38	0 14	10 52
Boat knees														
Floats														
Fire wood, in vessels														
" " rafts														
Hoops														
Hop poles														
Lumber, sawn, in vessels	109	220	5						114	220	334	10 20	19 80	30 00
" " rafts														
Masts, spars, and telegraph poles, in vessels														
Masts, spars, and telegraph poles, in rafts														
Railway ties, in vessels														
" " rafts														
Saw logs														
Staves and headings, barrel														
" " pipe														
" " West India														
Staves, salt barrel														
Shingles														
Split posts and fence rails, in vessels														
Split posts and fence rails, in rafts														
Timber, square, in vessels		6								6	6		0 47	0 47
" " rafts														
Traverses														
Woodenware and wood partly manufactured	36								36		36	14 40		14 40
Total freight paying tolls	25,738	136,798	6,896		12			228,756	32,646	365,554	398,200	5,687 38	52,533 16	58,225 54

Free articles having paid full tolls on the Welland Canal:														
Agricultural implements						278		1,507		1,785	1,785			
Ashes								3		3	3			
Corn		8,033						6,286		14,319	14,319			
Flax seed		4,965								4,965	4,965			
Flour		622						778		1,400	1,400			
Furniture						5				5	5			
Glass								1		1	1			
Hay pressed								246		246	246			
Iron, all other		55						1,123		1,178	1,178			
Lard and lard oil						606		549		1,155	1,155			
Meals								35		35	35			
Meats (all kinds)						2		112		114	114			
Merchandise		5				6		2,409		2,420	2,420			
Oats		1,584								1,584	1,584			
Oil cake								1,083		1,083	1,083			
Oils		12,686						2,301		14,987	14,987			
Paint		15						2		17	17			
Pork								34		34	34			
Rye		1,910						1,051		2,961	2,961			
Salt								50		50	50			
Soda ash		4								4	4			
Sugar								112		112	112			
Tobacco								23		23	23			
Wheat		118,464						14,238		132,702	132,702			
Whiskey and all other spirits						31		1		32	32			
Barrels (empty)								66		66	66			
Lumber sawn (in vessels)		1,978				429		228		2,635	2,635			
Square timber (in vessels)		504								504	504			
Coal free per Order in Council	2,726		45						2,765		2,765			
Grand total through freight	28,458	287,623	6,941		12	1,357		260,994	35,411	549,974	585,385			

Total tolls on vessels	5,208 72	5,506 01	10,714 73
" passengers	707 25	2,496 80	3,204 05
" free goods.....$21,115.61			
Total through tolls	11,603 35	60,540 97	72,144 32

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 6 GENERAL STATEMENT showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canandian Ports.		Tons.		Total Tons.	Amount of Tolls, up.	Amount of Tolls, Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Ashes, pot and pearl														
Apples	4	10							4	10	14	0 35	0 58	0 93
Agricultural products not enumerated, vegetables	604	23							604	23	627	24 34	0 89	25 23
Agricultural products not enumerated, animal	1,265	350							1,265	350	1,615	63 41	22 43	85 84
Agricultural implements	50	36							50	36	86	7 70	1 80	9 50
Barley	6	3,906							6	3,906	3,912	0 25	97 71	97 96
Bricks	8,426	16				15	26		8,452	31	8,483	358 64	1 18	359 82
Bones		13								13	13		0 99	0 99
Brimstone	5								5		5	0 38		0 38
Buckwheat	23	729							23	729	752	0 59	18 24	18 83
Cement and water lime	3,475	346				145	990	598	4,465	1,089	5,554	254 16	77 82	331 98
Clay, lime and sand	10,815	23,624				22	1,724		12,539	23,646	36,185	504 77	985 95	1,490 72
Coal		6,296			40	738		17,361	40	24,395	24,435	1 50	1,461 29	1,462 79
Corn	574	85,636			4	9		857	578	86,502	87,080	43 50	2,177 18	2,220 68
Cattle	40	382	1						41	382	423	1 96	28 64	30 60
Cotton (raw)														
Crockery and earthenware	52	21							52	21	73	8 80	1 15	9 95
Dye wood and dye stuffs	36						38		74		74	5 50		5 50
Fish	47	6							47	6	53	3 01	0 24	3 25
Flax and hemp	1								1		1	0 10		0 10
Flour	889	8,140							889	8,140	9,029	54 22	398 89	453 11
Furniture	144	208							144	208	352	19 17	16 45	35 62
Gypsum	1,390								1,390		1,390	18 33		18 33
Glass, all kinds	133	43							133	43	176	22 48	2 35	24 83
Hay, pressed	2,503	1,705							2,503	1,705	4,208	94 20	100 95	195 15
Hogs	10	22							10	22	32	0 40	1 67	2 07
Horses	281	448							281	148	729	14 93	22 95	37 88

Hides and skins, horns and hoofs	22	14							22	14	36	1 66	0 53	2 19	
Ice															
Iron, railway	756	115							756	115	871	53 96	8 57	62 53	
" pig	229						170		399		399	15 84		15 84	
" all other	8,261	1,333							8,261	1,333	9,594	345 46	58 54	404 00	
Iron ore															
Kyrolite chemical ore and other ore, except iron		307								307	307		34 54	34 54	
Lard and lard oil	102	42							102	42	144	10 03	1 64	11 67	
Meal, all kinds	9	875							9	875	884	0 66	44 34	45 00	
Meats, other than pork	5								5		5	0 42		0 42	
Marble	4	1							4	1	5	0 76	0 05	0 81	
Manilla	10								10		10	1 90		1 90	
Molasses	352	127							352	127	479	51 16	6 40	57 56	
Nails	229	404							229	404	633	37 57	20 35	57 92	
Oats	937	18,279							937	18,279	19,216	24 30	476 88	501 18	
Oil (in barrels)	234	371					11		245	371	616	31 21	19 15	50 36	
Oil cake		1,395								1,395	1,395		68 00	68 00	
Pease	66	661							66	661	727	1 71	16 66	18 37	
Potatoes	6	6							6	6	12	0 41	0 38	0 79	
Pork	195	385							195	385	580	19 20	19 19	38 39	
Paint	53	206					17		70	206	276	9 21	10 30	19 51	
Pitch and tar	108	151					212		320	151	471	24 10	7 55	31 65	
Rags	11	1							11	1	12	2 09	0 10	2 19	
Rye		5,466								5,466	5,466		136 67	136 67	
Flax seed	1	17,208							1	17,208	17,209	0 03	430 26	430 29	
Rosin	92	21					1,213		1,305	23	1,326	65 67	1 05	66 72	
Salt	1,663	36					169		1,832	36	1,868	163 12	1 47	164 59	
Stone intended for cutting	54	2,180					172		226	2,180	2,406	11 60	81 75	93 35	
Stone, wrought	223	11							223	11	234	20 54	0 55	21 09	
Stone not suitable for cutting, unrought	23	948							23	948	971	0 45	18 90	19 35	
Seeds, all kinds	3,863	57							3,863	57	3,920	146 22	2 16	148 38	
Sheep	6	89							6	89	95	0 31	6 74	7 05	
Soda ash	3	13							3	13	16	0 30	0 65	0 95	
Steel	410	15							410	15	425	25 71	0 58	26 29	
Sugar	725	120					327		1,052	120	1,172	122 12	6 00	128 12	
Spirits, beer, &c	319	46							319	46	365	41 79	2 45	44 24	
Tobacco, raw	6								6		6	0 60		0 60	
Tallow															
Tin	43	3							43	3	46	7 90	0 15	8 05	
Turpentine	23	18					118		141	18	159	7 19	0 90	8 09	
Wheat	196	208,618							196	208,618	208,814	4 90	5,223 85	5,228 75	
Whhite lead	23	20							23	20	43	4 19	1 00	5 19	
Whiting	7	2							7	2	9	1 06	0 10	1 16	
Wool															
All other goods and merchandise not enumerated	3,635	1,776	6		155	707	667	5	4,463	2,488	6,951	385 85	163 35	549 20	
Bark															

No. (A) 6.—General Statement showing the Quantity of each Article of Way Freight transported on the St. Lawrence Canals, and the Amount of Tolls collected during the Season of Navigation in 1901—*Continued.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls, up.	Amount of Tolls Down.	Total Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.				
												$ cts.	$ cts.	$ cts.
Barrels, empty	306	152			2				308	152	460	20 52	14 15	34 67
Boat knees														
Floats	860								860		860	15 06		15 06
Fire wood, in vessels	2,094	6,717	120		180		537		2,931	6,717	9,648	48 95	159 67	208 62
" " rafts														
Hoops														
Hop poles	1	31							1	34	35	0 25	2 00	2 25
Lumber, sawn, in vessels	21,436	4,007							21,436	4,007	25,443	727 56	107 41	834 97
Lumber, sawn, in rafts	14	954							14	954	968	0 60	42 64	43 24
Masts, spars and telegraph poles, in vessels														
Masts, spars and telegraph poles, in rafts	70	22,878							70	22,878	22,948	1 75	571 95	573 70
Railway ties, in vessels		4								4	4		0 14	0 14
" " rafts		154								184	184		7 35	7 35
Saw logs														
Staves and headings, barrel														
" " pipe														
" " West India														
Staves, salt barrel														
Shingles	1	96												
Split posts and fence rails, in vessels									1	96	97	0 15	16 34	16 49
Split posts and fence rails, in rafts														
Timber, square, in vessels	185	534							185	534	719	2 38	6 87	9 25
Timber, square, in rafts	1,060	3,825							1,060	3,828	4,888	26 50	99 20	125 70
Traverses		60								60	60		0 75	0 75
Woodenware and wood partly manufactured	18	47							18	47	65	3 60	9 30	12 90
Total freight paying tolls	79,722	432,775	127		381	1,636	6,391	18,821	86,621	453,232	539,853	3,991 21	13,328 87	17,320 08

Free articles having paid full tolls on the Welland Canal:														
Corn		2,592						2,988		5,580	5,580			
Coal, free, per Order in Council	67,727						6,326		74,053		74,052			
Free articles for canal construction, O. C., 1884;														
Coal		723				129		2,573		3,425	3,425			
Grand total way freight	147,449	436,090	127		381	1,765	12,717	24,382	160,674	462,237	622,911			
Total way tolls on vessels												4,201 15	2,378 71	6,579 86
" " passengers												532 07	700 57	1,232 64
" " free goods												84,618 01		
Total way tolls												8,724 43	16,408 15	25,132 58

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DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 7.—General Statement showing the Quantity of each Article transported on the Ottawa Canals, and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Ashes, pot and pearl		3								3	3	0 57
Apples		110								110	110	6 43
Agricultural products not enumerated, vegetables		13								13	13	1 22
" " " animal		2,351								2,351	2,351	209 16
Agricultural implements		4								4	4	0 76
Barley										1	1	0 06
Bricks		1								10	10	0 71
Bones		10										
Brimstone										40	40	3 84
Buckwheat		40							291	161	452	18 59
Cement and water lime	291	161							490	1,890	2,380	54 65
Clay, lime and sand	490	1,890								6	6	0 10
Coal		6										
Corn										492	492	40 94
Cattle		492										
Cotton (raw)												
Crockery and earthenware										3	3	0 29
Dye wood and dye stuffs		3								4	4	0 21
Fish		4										
Flax and hemp										56	56	5 55
Flour		56								33	33	5 82
Furniture		33										
Gypsum										11	11	2 09
Glass (all kinds)		11								2,761	2,761	224 49
Hay (pressed)		2,761								130	130	10 57
Hogs		130								135	149	6 78
Horses	14	135							14	4	4	0 28
Hides and skins, horns and hoofs		4										
Ice												

Iron, railway		10								10	10	0	98
" pig													
" all other		25								25	25	2	03
Iron ore													
Kryolite chemical ore and other ore, except iron													
Lard and lard oil		2								2	2	0	20
Meal, all kinds		2								2	2	0	12
Meats, other than pork		34								34	34	2	03
Marble													
Manilla		2								2	2	0	38
Molasses													
Nails													
Oats		1,132								1,132	1,132	77	47
Oil (in barrels)		1								1	1	0	19
Oil cake													
Pease		27								27	27	2	15
Potatoes		148								148	148	9	54
Pork		9								9	9	0	74
Paint		1								1	1	0	19
Pitch and tar		133								133	133	25	37
Rags		71								71	71	13	81
Rye		6								6	6	0	59
Flax seed													
Rosin													
Salt		20								20	20	1	36
Stone intended for cutting													
" wrought		1								1	1	0	19
" not suitable for cutting, unwrought													
Seeds, all kinds													
Sheep		367								367	367	32	24
Soda ash													
Steel													
Sugar		7								7	7	0	69
Spirits, beer, &c		3								3	3	0	39
Tobacco (raw)													
Tallow		29								29	29	2	85
Tin													
Turpentine													
Wheat													
White lead													
Whiting													
Wool													
All other goods and merchandise not enumerated		431								431	431	75	56
Bark													
Barrels empty		45								45	45	6	46
Boat knees													
Floats	20	62,160							20	62,160	62,180	517	56
Fire wood, in vessels	120	11,889		242					120	12,131	12,251	382	35
" rafts													
Hoops		19								19	19	1	10

No. (A) 7.—General Statement showing the Quantity of each Article transported on the Ottawa Canals, and the Amount of Revenue Collected, &c. —*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Hop poles												
Lumber, sawn, in vessels		261,767		37,694						299,461	299,461	20,969 17
" " rafts		14								41	14	0 24
Masts, spars and telegraph poles, in vessels												
" " " " rafts												
Railway ties, in vessels		56								56	56	5 15
" " rafts		19								19	19	1 00
Saw logs		2,717								2,717	2,717	61 50
Staves and headings, barrel												
" " pipe												
" " West India												
Staves, salt barrel												
Shingles		92		3						95	95	12 73
Split posts and fence rails, in vessels												
" " " rafts												
Timber, square, in vessels		11,350								11,350	11,350	125 82
" " rafts		720								720	720	7 51
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	935	361,527		37,939					935	399,466	400,401	22,932 30
Free per Order in Council, June 27, 1890.												
Floats		27,140								27,140	27,140	
Railway ties in rafts		19								19	19	
Square timber "		17,120								17,120	17,120	
Saw logs		1,182								1,182	1,182	
Freight, grand total	935	406,988		37,939					935	444,927	445,862	

Total tolls on vessels		2,542 18
" passengers		152 71
" free goods	$434 19	
Other receipts		35 25
Total revenue exclusive of hydraulic rents		25,662 44

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 8.—General Statement showing the Quantity of each Article transported on the Chambly Canal, and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Ashes, pot and pearl												
Apples	5	460						15	5	475	480	33 03
Agricultural products not enumerated, vegetables												
" " " animal												
Agricultural implements	46								46		46	1 58
Barley		18	3						3	18	21	80
Bricks	256							43	256	43	299	22 57
Bones												
Brimstone								168		168	168	16 80
Buckwheat												
Cement and water lime	6			88				5,942	6	6,030	6,036	637 89
Clay, lime and sand	290	555						7,870	290	8,425	8,715	853 38
Coal								84,949		84,949	84,949	8,334 16
Corn												
Cattle		156								156	156	5 42
Cotton (raw)												
Crockery and earthenware		37								37	37	3 70
Dye wood and dye stuffs								36		36	36	3 60
Fish												
Flax and hemp												
Flour	490	4							490	4	494	16 75
Furniture												
Gypsum												
Glass (all kinds)								3		3	3	30
Hay (pressed)	689	2,303	23,258	997				48	23,947	3,348	27,295	1,894 79
Hogs												
Horses	10	34							10	34	44	1 60
Hides and skins, horns and hoofs												
Ice												
Iron, railway												

" pig								170		170	170	17	00
" all other	34							711	34	711	745	72	29
" ore								17,329		17,329	17,329	866	45
Kryolite chemical ore and other ore, except iron													
Lard and lard oil													
Meal, all kinds													
Meats, other than pork													
Marble													
Manilla													
Molasses	112	3							112	3	115	3	92
Nails	6								6		6		21
Oats	7	2,141							7	2,141	2,148	71	82
Oil (in barrels)	66							86	66	86	152	10	89
Oil cake													
Pease		13								13	13		44
Potatoes	3	15							3	15	18		61
Pork													
Paint								1		1	1		10
Pitch and tar								2,301		2,301	2,301	230	10
Rags													
Rye													
Flax seed													
Rosin								2,057		2,057	2,057	237	24
Salt	214							336	214	336	550	40	78
Stone intended for cutting		20								20	20	1	34
" wrought													
" not suitable for cutting, unwrought	10							672	10	672	682	72	17
Seeds, all kinds	19								19		19		65
Sheep		75								75	75	2	69
Soda ash													
Steel													
Sugar	76							493	76	493	569	51	88
Spirits, beer, &c													
Tobacco (raw)													
Tallow													
Tin													
Turpentine								137		137	137	13	70
Wheat													
White lead													
Whiting													
Wool													
All other goods and merchandise	874	646	4,528	160				1,013	5,402	1,819	7,221	582	72
Bark													
Barrels, empty		23								23	23	2	60
Boat knees		13								13	13	1	00
Floats													
Fire wood, in vessels	1,059	588	158,397						159,456	588	160,044	5,333	53
" rafts													
Hoops													
Hop poles													

No. (A) 8.—General Statement showing the Quantity of each Article transported on the Chambly Canal, and the Amount of Revenue Collected, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts
Lumber, sawn, in vessels	1,170	11	29,121					273	30,291	284	30,575	1,768 21
" " rafts												
Masts, spars, and telegraph poles, in vessels												
" " " " rafts												
Railway ties, in vessels			4,587						4,587		4,587	366 35
" " rafts												
Saw logs												
Staves and headings, barrel												
" " pipe												
" " West India												
Staves, salt barrel												
Shingles												
Split posts and fence rails, in vessels	2								2		2	27
" " " rafts												
Timber, square, in vessels								1,447		1,447	1,447	72 84
" " rafts												
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	5,444	7,115	219,894	1,245				126,100	225,338	134,460	359,798	21,648 17
Total tolls on vessels												3,152 46
" " passengers												63 89
Total revenue exclusive of hydraulic rents												24,864 52

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A.—*Continued.*

No. (A) 9.—General Statement showing the Quantity of each Article transported on the Rideau Canal and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts
Ashes, pot and pearl		2								2	2	0 36
Apples		16								16	16	0 45
Agricultural products not enumerated, vegetables												
" " " animal	435	818							435	818	1,253	35 30
Agricultural implements	8	62							8	62	70	10 03
Barley		56								56	56	1 31
Bricks	232	104	61						293	104	397	12 09
Bones	2	12							2	12	14	0 62
Brimstone												
Buckwheat												
Cement and water lime	608	3							608	3	611	15 55
Clay, lime and sand	7,579	754	125						7,704	754	8,458	202 01
Coal		1,046						16,633		17,679	17,679	614 13
Corn	3	61							3	61	64	1 56
Cattle		2								2	2	0 12
Cotton (raw)												
Crockery and earthenware	1	4							1	4	5	0 45
Dye wood and dye stuffs												
Fish	45								45		45	1 09
Flax and hemp												
Flour	115	327							115	327	442	11 19
Furniture	7	19							7	19	26	2 59
Gypsum												
Glass (all kinds)	43	1							43	1	44	3 92
Hay (pressed)	310	26							310	26	336	8 93
Hogs												
Horses												
Hides and skins, horns and hoofs	7								7		7	0 18
Ice												
Iron, railway	6								6		6	0 15
" pig	2								2		2	0 05

No. (A) 9.—General Statement showing the Quantity of each Article transported on the Rideau Canal, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Iron, all other	369	6							369	6	375	9 77
" ore												
Kryolite, chemical ore or other ore, except iron		38								38	38	1 90
Lard and lard oil	63	9							63	9	72	1 92
Meal, all kinds	8	152							8	152	160	3 92
Meats, other than pork	3								3		3	0 09
Marble												
Manilla		1								1	1	0 09
Molasses	61	1							61	1	62	5 44
Nails	76	2							76	2	78	7 56
Oats	309	149							309	149	458	13 40
Oil (in barrels)	132	10							132	10	142	12 79
Oil cake		1								1	1	0 03
Pease	9	2							9	2	11	0 26
Potatoes												
Pork	48								48		48	1 33
Paint	20								20		20	1 80
Pitch and tar	16	16							16	16	32	2 84
Rags	19	7							19	7	26	2 64
Rye												
Flax seed												
Rosin	1								1		1	0 09
Salt	961	225							961	225	1,186	30 03
Stone intended for cutting	5								5		5	0 12
" wrought												
" not suitable for cutting, unwrought		188								188	188	2 34
Seeds, all kinds	1								1		1	0 03
Sheep												
Soda ash												
Steel	11	5							11	5	16	0 42
Sugar	214	14							214	14	228	21 84
Spirits, beer, &c	56	9							56	9	65	5 87
Tobacco (raw)	8								8		8	0 22
Tallow		2								2	2	0 05

Tin	3								3		3	0 27	
Turpentine													
Wheat	9	456							9	456	465	10 86	
White lead	23								23		23	2 07	
Whiting													
Wool													
All other goods and merchandise not enumerated	688	462							688	462	1,150	113 76	
Bark													
Barrels, empty	10	10							10	10	20	1 49	
Boat knees													
Floats													
Fire wood, in vessels	3,939	168							3,939	168	4,107	72 70	
" rafts													
Hoops													
Hop poles													
Lumber, sawn, in vessels	1,260	3,332	8,408	3,936					9,668	7,268	16,936	1,239 06	
" " rafts													
Masts, spars, and telegraph poles, in vessels													
" " " rafts													
Railway ties, in vessels	533								533		533	21 22	
" rafts													
Saw logs													
Staves and headings, barrel													
" " pine													
" " West India													
Staves and barrel													
Shingles	84	71							84	71	155	37 55	
Split posts and fence rails, in vessels													
" " " rafts													
Timber, square, in vessels													
" rafts	20	20							20	20	40	0 76	
Traverses													
Woodenware and wood partly manufactured		32								32	32	3 20	
Total freight paying tolls	18,362	8,701	8,594	3,936				16,633	26,956	29,270	56,226	2,551 81	
Coal, free, per Order in Council	150								150		150		
Grand total freight	18,512	8,701	8,594	3,936				16,633	27,106	29,270	56,376		

Total tolls on vessels		1,401 48
" passengers		161 15
" free coal	84 00	
Wharfage and winterage		121 50
Other receipts		125 00
Total revenue, exclusive of hydraulic rents		4,360 94

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 10—General Statement showing the Quantity of each Article transported on the St. Peter's Canal, and the Amount of Revenue collected during the Season of Navigation, in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to Canadian Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Ashes, pot and pearl												
Apples	83								83		83	0 83
Agricultural products not enumerated, vegetables	98								98		98	0 98
" " " animal	4								4		4	0 04
Agricultural implements	9								9		9	0 09
Barley	5								5		5	0 05
Bricks	4,218								4,218		4,218	42 18
Bones		4								4	4	0 04
Brimstone												
Buckwheat	1								1		1	0 01
Cement and water lime	323	463							323	463	786	7 86
Clay, lime and sand		411								411	411	4 11
Coal	62	46,324							62	46,324	46,386	463 86
Corn												
Cattle	11								11		11	0 11
Cotton (raw)												
Crockery and earthenware	14								14		14	0 14
Dye wood and dye stuffs												
Fish	81	1,561							81	1,561	1,642	16 42
Flax and hemp												
Flour	1,527								1,527		1,527	15 27
Furniture	27								27		27	0 27
Gypsum												
Glass (all kinds)	5								5		5	0 05
Hay (pressed)	1,739								1,739		1,739	17 39
Hogs												
Horses												
Hides and skins, horns and hoofs		1								1	1	0 01
Ice												
Iron, railway												
" pig	1	50							1	50	51	0 51
" all other	65	65							65	65	130	1 30

| | | |

No. (A) 10.—General Statement showing the Quantity of each Article transported on the St. Peter's Canal, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to Canadian Ports.		From United States to United States Ports.		From United States to United States Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Masts, spars, and telegraph poles, in vessels	82	141							82	141	223	2 23
" " " " " rafts												
Railways ties, in vessels	30								30		30	0 30
" " rafts												
Saw logs												
Staves and headings, barrel												
" " pipe												
" " West India												
Staves, salt barrel												
Shingles	368								368		368	3 68
Split posts and fence rails, in vessels	138								138		138	1 38
" " " " " rafts												
Timber, square, in vessels	519	110							519	110	629	6 29
" " rafts												
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	35,576	52,681							35,576	52,681	88,257	882 57

Total tolls on vessels	2,416 55
Other receipts	
Total recipts	3,299 12

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 11.—General Statement showing the Quantity of each Article transported on the Trent Valley Canals, and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Ashes, pot and pearl												
Apples												
Agricultural products not enumerated, vegetables												
" " " animal		8								8	8	0 24
Agricultural implements												
Barley												
Bricks		113								113	113	1 13
Bones												
Brimstone												
Buckwheat	22								22		22	0 22
Cement and water lime												
Clay, lime and sand												
Coal												
Corn												
Cattle	5	9							5	9	14	0 14
Cotton (raw)												
Crockery and earthenware												
Dye wood and dye stuffs												
Fish												
Flax and hemp												
Flour												
Furniture	1								1		1	0 03
Gypsum												
Glass (all kinds)												
Hay (pressed)												
Hogs	162								162		162	1 62
Horses												
Hides and skins, horns and hoofs	2								2		2	0 02
Ice												
Iron, railway												

No. (A) 11.—General Statement showing the Quantity of each Article transported on the Trent Valley Canals—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Iron pig												
" all other												
Iron ore												
Kryolite chemical ore and other ore, except iron												
Lard and lard oil												
Meal, all kinds												
Meats, other than pork												
Marble												
Manilla												
Molasses												
Nails												
Oats												
Oil (in barrels)												
" cake												
Pease	3								3		3	0 03
Potatoes												
Pork												
Paint												
Pitch and tar												
Rags												
Rye												
Flax seed												
Rosin												
Salt												
Stone intended for cutting												
" wrought												
" not suitable for cutting, unwrought												
Seeds, all kinds												
Sheep	12								12		12	0 12
Soda ash												
Steel												
Sugar												
Spirits, beer, &c.												

Tobacco (raw)													
Tallow													
Tin													
Turpentine													
Wheat	494	50							494	50	544	7	94
White lead													
Whiting													
Wool													
All other goods and merchandise not enumerated	11	67							11	67	78	2	34
Bark	36								36		36	1	37
Barrels, empty													
Boat knees													
Floats													
Fire wood, in vessels	512	5,816							512	5,816	6,328	54	57
" rafts	12,825	2,850							12,825	2,850	15,675	156	75
Hoops													
Hop poles													
Lumber, sawn, in vessels	2,346	244							2,346	244	2,590	51	21
" " rafts													
Masts, spars and telegraph poles, in vessels													
" " " rafts	250								250		250	2	50
Railway ties, in vessels													
" " rafts	886								886		886	34	95
Saw logs	8,533	623							8,533	623	9,156	78	96
Staves and headings, barrel													
" " pipe													
" " West India													
Staves, salt barrel													
Shingles													
Split posts and fence rails, in vessels	19	2							19	2	21	1	95
" " " rafts													
Timber, square, in vessels													
" " rafts	31	600							31	600	631	6	60
Woodenware and wood partly manufactured													
Total freight paying tolls	26,150	10,382							26,150	10,382	36,532	402	72

Total tolls on vessels	505 36
" " passengers	155 16
Other receipts	36 60
Total revenue exclusive of hydraulic rents	1,099 84

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 12.—General Statement showing the Quantity of each Article transported on the Murray Canal, and the Amount of Revenue collected during the Season of Navigation in 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		$ cts.
Ashes, pot and pearl												
Apples	11	319							11	319	330	6 29
Agricultural product not enumerated, vegetables	168	138	50						218	138	356	6 77
" " " animal	42								42		42	0 80
Agricultural implements	1								1		1	0 03
Barley		688								688	688	12 92
Bricks	32	2							32	2	34	0 65
Bones												
Brimstone	8								8		8	0 16
Buckwheat		3								3	3	0 06
Cement and water lime	14	8							14	8	22	0 42
Clay, lime and sand	61								61		61	1 17
Coal	80	320					490	1,299	570	1,619	2,189	41 08
Corn												
Cattle		10								10	10	0 15
Cotton (raw)												
Crockery and earthenware	32	36							32	36	68	1 72
Dye wood and dye stuffs		5								5	5	0 13
Fish	4								4		4	0 08
Flax and hemp												
Flour		5								5	5	0 10
Furniture	83	125	3						86	125	211	5 55
Gypsum								7		7	7	0 14
Glass (all kinds)	45	60							45	60	105	2 64
Hay (pressed)												
Hogs												
Horses	4	1						1	4	2	6	0 12
Hides and skins, horns and hoofs												
Ice												

Iron, railway	75	61						75	61	136	2	62
" pig		6							6	6	0	12
" all other	347	80						347	80	427	8	09
Iron ore												
Kryolite chemical ore and other ore, except iron		152							152	152	2	85
Lard and lard oil	56	40						56	40	96	1	86
Meal, all kinds		13							13	13	0	26
Meats, other than pork		2							2	2	0	04
Marble												
Manilla												
Molasses	3	37						3	37	40	1	01
Nails	74	81						74	81	155	3	90
Oats		19							19	19	0	36
Oils (in barrels)	54	126					14	54	140	194	4	87
Oil cake												
Pease		376							376	376	7	09
Potatoes												
Pork												
Paint	12	60						12	60	72	1	82
Pitch and tar												
Rags	33	36						33	36	69	1	74
Rye		868							868	868	16	32
Flax seed												
Rosin												
Salt	215	22						215	22	237	4	48
Stone intended for cutting												
" wrought		21							21	21	0	53
" not suitable for cutting, unwrought	2,170							2,170		2,170	21	70
Seeds, all kinds	42	8						42	8	50	0	98
Sheep												
Soda ash	32							32		32	0	81
Steel	4	44						4	44	48	0	93
Sugar	350	110						350	110	460	11	54
Spirits, beer, &c	1	70						1	70	71	1	78
Tobacco (raw)												
Tallow												
Tin	34	24						34	24	58	1	46
Turpentine		8							8	8	0	20
Wheat	24	890						24	890	914	17	18
White lead												
Whiting	28							28		28	0	70
Wool		5							5	5	0	12
All other goods and merchandise not enumerated	3,739	5,655	1				13	3,740	5,668	9,408	235	37
Bark												
Barrels, empty							22		22	22	0	42
Boat knees												
Floats												
Fire wood, in vessels	717		4,560					5,277		5,277	47	28
" rafts												
Hoops												

No. (A) 12.—General Statement showing the Quantity of each Article transported on the Murray Canal, &c. *Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
												$ cts.
Hop poles												
Lumber, sawn, in vessels	32		264						296		296	3 32
" rafts												
Masts, spars and telegraph poles, in vessels			30						30		30	0 19
" " rafts												
Railway ties, in vessels			1,284						1,284		1,284	12 84
" rafts												
Saw logs												
Staves and headings, barrel												
" pipe												
" West India												
Staves, salt barrel												
Shingles			56						56		56	4 60
Split posts and fence rails, in vessels												
" " rafts												
Timber, square, in vessels												
" " rafts		2,280								2,280	2,280	28 50
Traverses												
Woodenware and wood partly manufactured												
Total freight paying tolls	8,627	12,814	6,248				490	1,356	15,365	14,170	29,535	528 86

Total tolls on vessels	284 63
" passengers	235 71
Total revenue, exclusive of hydraulic rents	1,049 20

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 13.—General Statement showing the Quantity of each Article transported on Sault Ste. Marie Canal, during the Season of Navigation, 1901.

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Ashes, pot and pearl									246		246
Apples	30		216			1				1	1
Agricultural products not enumerated, vegetables											
" " " " animal										1,759	1,759
Agricultural implements						1,759			4,422		4,422
Barley	420		90				3,912				
Bricks											
Bones											
Brimstone									2,333		2,333
Buckwheat	400				225		1,708		639	16,190	16,829
Cement and water lime	340	9,120		7,070			299		502,793	7,600	510,393
Clay, lime and sand	50	750			384,410	6,850	118,333		1,456	27,732	29,188
Coal						21,266	1,456	6,466	274	12	286
Corn	272	12	2								
Cattle									145		145
Cotton (raw)	115										
Crockery and earthenware										1,268	1,268
Dye wood and dye stuffs		585		439		121		123			
Fish									30	137,377	137,407
Flax and hemp	30	28,197				89,920		19,260	55	1	56
Flour	55					1					
Furniture									114		114
Gypsum	112						2		1,683	9	1,692
Glass (all kinds)	1,573	9	110								
Hay (pressed)								28	142	69	211
Hog	137	15	5	26							
Horses											
Hides and skins, horns and hoofs											
Ice											

No. (A) 13.—General Statement showing the Quantity of each Article transported on the Sault Ste. Marie Canal, &c.—*Concluded.*

Articles.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	
Iron, railway	1,021	75	95		2,800	60	12,189		16,105	135	16,240
" pig	5,163	400			440	4,686	15,627	1,759	21,230	845	28,075
" all other	1,584	90	107		3,014		1,164		5,869	690	5,959
Iron, ore		62,309		128,708	2,950	1,381,567	130	20,885	3,080	1,593,469	1,596,549
Kryolite chemical ore and other ore, except iron		54				11,774		24		11,852	11,852
Lard and lard oil											
Meal, all kinds											
Meats, other than pork											
Marble											
Manilla	175								175		175
Molasses	36								36		36
Nails	581						101		682		682
Oats	818	1,344	17			7,558	1,966	990	2,801	9,892	12,693
Oil (in barrels)	209		115		2,977		1		3,302		3,302
Oil cake								3,864		3,864	3,864
Pease											
Patatoes											
Pork											
Paint	72								72		72
Pitch and tar	24								24		24
Rags											
Rye						3,374				3,374	3,374
Flax seed						13,880		4,289		18,169	18,169
Rosin											
Salt	1,008		1,189		4,668		143		7,008		7,008
Stone intended for cutting											
" wrought	20								20		20
" not suitable for cutting, unwrought	4,918	190							4,918	190	5,108
Seed, all kinds	4								4		4
Sheep											
Soda ash											
Steel	642				869		1,596		3,107		3,107
Sugar	821								821		821
Spirits, beer, &c.	546		65						611		611

Tobacco (raw)											
Tallow											
Tin	10								10		10
Turpentine											
Wheat		170,896		5,895		44,490		67,905		289,186	289,186
White lead	95								95		95
Whiting											
Wool						1,185		30		1,215	1,215
All other good and merchandise not enumerated	22,464	2,246	16,529	253	20,442	858	792	476	60,227	3,835	64,060
Bark											
Barrels empty											
Boat knees											
Flatts											
Fire wood, in vessels	612	693				2,400			612	3,093	3,705
" " rafts		186								186	186
Hoops											
Hop poles											
Lumber, sawn, in vessels	7,099	306				11,895	809	767	8,008	12,968	20,976
" " rafts		14								14	14
Masts, spars, and telegraph poles, in vessels											
" " " " rafts		45				100				145	145
Railway ties, in vessels	2,670	135				62	2,438		5,108	197	5,305
" " rafts											
Saw logs	586	1,046			473	1,338	489		1,548	2,384	3,932
Staves and headings, barrel											
" " pipe											
" " West India											
Staves, salt barrel											
Shingles	9	10				2,953		879	9	3,842	3,851
Split posts and fence rails, in vessels											
" " " " rafts											
Timber, square, in vessels	100						1,295	2,220	1,395	2,220	3,615
" " rafts	3								3		3
Traverses											
Woodenware and wood partly manufactured	1								1		1
Total freight	54,955	278,727	18,540	142,391	423,268	1,608,098	164,450	129,965	661,213	2,159,181	2,820,394

RICHARD DEVLIN,
Compiler of Canal Statistics.

Department of Railways and Canals,
Ottawa, September, 2, 1902.

APPENDIX

No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals, and

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
Class No. 1.		$ cts.		$ cts.		$ cts.
Canadian vessels, steam	285,672	3,662 72	740,269	4,935 75	56,470	218 20
United States vessels, steam	347,821	5,223 47	84,536	503 13	1,074	15 22
Canadian vessels, sail	127,925	2,782 87	1,118,866	10,787 35	24,901	310 55
United States vessels, sail	44,162	982 81	91,651	1,068 36	213,389	2,608 49
Total, Class No. 1	805,580	12,651 87	2,035,322	17,294 59	295,834	3,152 46
Class No. 2.	No.		No.		No.	
Passengers	12,117	148 30	85,246	4,436 69	3,587	63 89
Class No. 3.	Tons.		Tons.		Tons.	
Bricks	78	1 48	9,135	457 62	299	22 57
Brimstone			85	12 38	168	16 80
Cement and water lime	389	44 85	9,456	916 38	6,036	637 89
Clay, lime and sand	475	58 39	36,574	1,749 07	8,715	853 38
Fish	521	78 15	77	6 85		
Gypsum			1,390	18 33		
Iron (railway)	83	12 45	2,749	344 23		
" (pig)	3,809	660 85	624	49 59	176	17 00
" (all other)	2,285	428 22	17,508	1,591 10	745	72 29
Steel	68	10 20	804	83 14		
Salt	327	64 14	3,274	375 49	556	40 78
Stone, for cutting			2,406	93 35	20	1 34
Apples	5	0 13	703	104 28	480	33 03
Barley	7,119	711 90	18,051	1,511 86	21	80
Buckwheat			872	30 83		
Corn	67,756	6,775 60	88,885	2,401 18		
Cotton (raw)						
Flax and hemp			1	0 10		
Flour	18,978	3,516 79	12,491	972 41	494	16 75
Hay (pressed)	246	49 20	4,208	195 15	27,295	1,894 79
Meals (all kinds)	14,019	3,803 48	937	52 95		
Oil cake	1,415	283 00	1,395	68 00		
Oats	28,485	2,868 99	25,525	1,132 08	2,148	71 82
Pease			6,811	626 77	13	44
Potatoes			13	94	18	61
Rye	2,961	296 10	10,828	672 87		
Flax seed	4,967	496 70	17,217	431 09		
Seeds (all kinds)	11	0 21	4,517	237 93	19	0 65
Tobacco (raw)	23	4 60	6	0 60		
Wheat	151,586	15,197 69	226,862	7,032 55		
All other agricultural products, vegetable	10	2 00	2,185	257 93		
Bones			16	1 44		
Cattle	1	0 15	423	30 60	156	5 42
Hogs			32	2 07		
Hides and skins, horns and hoofs			50	4 29		
Horses	4	21	788	46 73	44	1 60
Lard and lard oil	2,567	501 40	437	55 62		
Meats (other than pork)	121	24 20	11	1 32		
Pork	1,015	202 95	615	43 64		
Sheep			95	7 05	75	2 69
Tallow	666	105 85	82	12 30		
Wool	8	1 35				
All other agricultural products, animal			2,956	286 99		
Total, Class No. 3	309,938	35,201 23	511,088	21,720 10	47,466	3,680 65

A—*Continued.*

the amount of Tolls collected during the Season of Navigation in 1901.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	
209,564	230 69	126,837	629 54	124,767	821 26	41,977	839 75	65,328	375 51	634,186
1,044	4 26	.....	.....	877	12 25	402	8 04	.....	.....	1,423,803
12,387	45 18	115,144	1,554 86	32,329	454 36	77,840	1,558 14	34,837	129 85	140,965
337	4 50	15,577	357 78	6,276	113 61	531	10 62	.....	.....	250,794
223,332	284 63	257,558	2,542 18	164,249	1,401 48	120,750	2,416 55	100,165	505 36	2,449,748
No.		No.		No.		No.		No.		No.
19,120	235 71	10,822	152 71	6,199	161 15	.....	.....	23,306	155 16	30,031
Tons.		Tons.		Tons.		Tons.		Tons.		Tons.
34	0 65	1	0 06	397	12 09	4,218	42 18	113	1 13	4,422
8	0 16	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	0 42	452	18 59	611	15 55	786	7 86	.....	.....	2,333
61	1 17	2,380	54 65	8,458	202 01	411	4 11	.....	.....	16,829
4	0 08	4	0 24	45	1 09	1,642	16 42	.....	.....	1,268
7	0 14	.....	.....	.....	.....	.....	.....	.....	.....	.....
136	2 62	10	0 98	6	0 15	.....	.....	.....	.....	16,240
6	0 12	.....	.....	2	0 05	51	0 51	.....	.....	28,075
427	8 09	25	2 03	375	9 77	130	1 30	.....	.....	5,959
48	0 93	.....	.....	16	0 42	.....	.....	.....	.....	3,107
237	4 48	20	1 36	1,186	30 03	757	7 57	.....	.....	7,008
.....	.....	.....	.....	5	0 12	108	1 08	.....	.....	.....
330	6 29	110	6 43	16	0 45	83	0 83	.....	.....	246
688	12 92	.....	.....	56	1 31	5	0 05	.....	.....	1,759
3	0 06	40	3 84	.....	.....	1	0 01	22	0 22	.....
.....	.....	.....	.....	64	1 56	.....	.....	.....	.....	29,188
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	0 10	56	5 55	442	11 19	1,527	15 27	.....	.....	137,407
.....	.....	2,761	224 49	336	8 93	1,739	17 39	.....	.....	1,692
13	0 26	2	0 12	160	3 92	681	6 81	.....	.....	.....
.....	.....	.....	.....	1	0 03	7	0 07	.....	.....	3,864
19	0 36	1,132	77 47	458	13 40	2,518	25 18	.....	.....	12,693
376	7 09	27	2 15	11	0 26	.....	.....	3	0 03	.....
.....	.....	148	9 54	.....	.....	4,230	42 30	.....	.....	.....
868	16 32	6	0 59	.....	.....	.....	.....	.....	.....	3,374
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,169
50	0 98	.....	.....	1	0 03	.....	.....	.....	.....	4
.....	.....	.....	.....	8	0 22	1	0 01	.....	.....	.....
914	17 18	.....	.....	465	10 86	.....	.....	544	7 94	289,186
356	6 77	13	1 22	.....	.....	98	0 98	.....	.....	1
.....	.....	10	0 71	14	0 62	4	0 04	.....	.....	.....
10	0 15	492	40 94	2	0 12	11	0 11	14	0 14	286
.....	.....	130	10 57	.....	.....	.....	.....	162	1 62	.....
.....	.....	4	0 28	7	0 18	1	0 01	2	0 02	.....
6	0 12	149	6 78	.....	.....	.....	.....	.....	.....	211
96	1 86	2	0 20	72	1 92	2	0 02	.....	.....	.....
2	0 04	34	2 03	3	0 09	21	0 21	.....	.....	.....
.....	.....	9	0 74	48	1 35	33	0 33	.....	.....	.....
.....	.....	367	32 24	.....	.....	8	0 08	12	0 12	.....
.....	.....	29	2 85	2	0 05	.....	.....	.....	.....	.....
5	0 12	.....	.....	.....	.....	.....	.....	.....	.....	1,215
42	0 80	2,351	209 16	1,253	35 30	4	0 04	8	24	.....
4,773	90 28	10,764	715 81	14,520	363 05	19,077	190 77	880	11 46	584,536

APPENDIX

No. (A) 14—STATEMENT of Traffic on the undermentioned Canals,

ARTICLES.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
Class No. 4.		$ cts.		$ cts.		$ cts.
Ashes, pot and pearl	3	0 60	69	13 80		
Agricultural implements	1,785	357 00	94	11 10	46	1 58
Crockery and earthenware	1	0 15	177	30 75	37	3 70
Dye woods and dye stuffs			78	6 30	36	3 60
Furniture	21	3 40	2,006	366 42		
Glass (all kinds)	62	5 82	1,377	265 03	3	30
Marble	1,360	204 06	5	0 81		
Manilla	557	83 55	11	2 10		
Molasses	305	46 60	499	61 56	115	3 92
Nails	27	1 70	1,760	283 32	6	0 21
Oil (in barrels)	18,337	3,649 55	1,718	270 76	152	10 89
Paint	144	21 97	622	88 71	1	0 10
Pitch and tar	21	4 00	642	65 85	2,301	230 10
Rags	47	0 90	239	47 59		
Rosin	25	3 75	1,333	68 12	2,057	237 24
Soda ash	120	17 42	344	66 65		
Sugar	5,002	772 41	4,708	835 32	569	51 88
Stone (wrought)			240	22 29		
Tin	26	3 90	1,311	261 05		
Turpentine			162	8 69	137	13 70
White lead			108	18 19		
Whiting			282	55 76		
Whiskey and all other spirits	108	17 67	689	109 04		
Merchandise (not enumerated)	33,451	5,130 40	17,531	2,665 20	7,221	582 72
Total, Class No. 4	61,402	10,324 79	36,005	5,624 31	12,681	1,139 94
Class No. 5.						
Bark						
Barrels (empty)	316	59 57	522	45 19	23	2 60
Boat knees					13	1 00
Floats			860	15 06		
Fire wood (in vessels)	6,176	315 68	9,648	208 62	160,044	5,333 53
" (in rafts)						
Lumber sawn (in vessels)	59,952	10,728 94	25,777	864 97	30,575	1,768 21
" (in rafts)	66	12 00	968	43 24		
Hoops						
Railway ties (in vessels)	709	56 00	4	0 14	4,587	366 35
" (in rafts)			184	7 35		
Masts, spars and telegraph poles (in vessels)						
Masts, spars and telegraph poles (in rafts)			22,948	573 70		
Square timber (in vessels)	14,527	2,177 98	725	9 72	1,447	72 84
" (in rafts)	18	74	4,888	125 70		
Woodenware and wood partly manufactured	124	49 60	101	27 30		
Shingles	54	15 60	97	16 49		
Split posts and fence rails (in vessels)					2	0 27
" " (in rafts)						
Saw logs	2,268	103 58				
Staves and headings (barrel)	1,724	27 60				
" " (pipe)						
" " (West India)						
" " (salt barrel)	44	3 52				
Traverses			60	0 75		
Hop poles			35	2 25		
Total, Class No. 5	85,978	13,550 81	66,817	1,940 48	196,691	7,544 80

SESSIONAL PAPER No. 20

A—*Continued.*

and the Amount of Tolls collected, &c.—*Continued.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	
.....	.....	3	0 57	2	0 36	... ..	....	... .	... ...	. .....
1	0 03	4	0 76	70	10 03	9	0 09	.....	.....	.....
68	1 72	....	....	5	0 45	14	0 14	.....	.....	145
5	0 13	3	0 29	..... .	... .	... .	.....	... ...	.....	.....
211	5 55	33	5 82	26	2 59	27	0 27	1	0 03	56
105	2 64	11	2 09	44	3 92	5	0 05	.....	.....	114
.....	.... ..	... ..	... .	....	....	858	8 58	.....	... ..	.. ..
....	.. ...	2	0 38	1	0 09	26	0 26	... .	.... ..	175
40	1 01	.....	. .. .	62	5 44	338	3 38	.....	.....	36
155	3 90	.....	....	78	7 56	93	0 93	.. ..	.....	682
194	4 87	1	0 19	142	12 79	209	2 09	.....	... .	3,302
72	1 82	1	0 19	20	1 80	24	0 24	.....	... .	72
.....	... ...	133	25 37	32	2 84	11	0 11	....	.....	24
69	1 74	71	13 31	26	2 64	.....	.....	..... .	.....	... .
.....	.....	.....	.....	1	0 09	.....	.....	.....	.....	.....
32	0 81	.....	.....	... .	.....	.....	... ...	... .	.....	.....
460	11 54	7	0 69	228	21 84	95	0 95	.....	....	821
21	0 53	1	0 19	.....	....	....	.....	.....	... .	20
58	1 46	....	... .	3	0 27	25	0 25	.....	.....	10
8	0 20	....	.....	.....	... .	.....	.....	.....	.....	.....
.....	.....	.....	.....	23	2 07	1	0 01	.....	.. ..	95
28	0 70	....	... ...	... .	.. ..	... .	.....	.....	.....	....
71	1 78	3	0 39	65	5 87	25	0 25	.....	.....	611
9,408	235 37	431	75 56	1,150	113 76	568	5 68	78	2 34	64,060
11,006	275 80	704	125 80	1,978	194 41	2,328	23 28	79	2 37	70,223
.....	.....	.....	.....	.....	....	112	1 12	36	1 37	.....
22	0 42	45	6 46	20	1 49	17	0 17	... ...	.... ..	.....
.....	.....	.....	.....	.....	... .	2	0 02	.....	... .	.....
.....	.....	62,180	517 56	.....	.....	.....	.....	6,328	54 57	. .....
5,277	47 28	12,251	382 35	4,107	72 70	222	2 22	15,675	156 75	3,705
... ...	.....	.....	.....	.....	.....	.....	.....	. ..	.....	186
296	3 32	299,461	20,969 17	16,936	1,239 06	16,391	163 91	2,590	51 24	20,976
.....	.....	14	0 24	.....	.....	.....	.....	....	....	14
.....	.....	19	1 10	.....	.....	.....	... ...	.....	.....	... .
1,284	12 84	56	5 15	533	21 22	30	0 30	... .	.. ..	5,305
.....	.....	19	1 00	.....	.. ..	.. ....	.....	886	34 95	.....
30	0 19	.....	.....	.....	... .	223	2 23	.....	....	.....
.....	.....	.....	.....	... ..	.....	.....	.....	250	2 50	145
.....	.....	11,350	125 82	.....	.....	629	6 29	.....	... ..	3,615
2,280	28 50	720	7 51	40	0 76	.....	.....	631	6 60	3
.....	.....	.....	....	32	3 20	.....	.....	.....	.....	1
56	4 60	95	12 73	155	37 55	368	3 68	21	1 95	3,851
.....	.....	.....	. .. .	.....	.....	138	1 38	. .. ..	.... ..	.....
.....	... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
..... .	.....	2,717	61 50	....	... .	.... ..	.....	9,156	78 96	4,932
.....	.....	.....	.....	.....	.....	.....	.....	... ..	. .. ..	. .....
.....	.....	.....	.....	... ..	. .....	.....	.....	.....	.. ...	.....
.....	.....	.....	.....	.....	.....	.. ..	.....	.....	.....	.....
.....	.....	.....	... .	.....	... ...	.....	.....	.....	.... ..	.....
.....	.....	.....	.. ....	.....	.... ..	.....	.....	.. ....	.....	.....
.....	.....	.....	....	.....	..... .	.....	... ...	.....	.....	.....
9,245	97 15	338,927	22,090 59	21,823	1,375 98	18,132	181 32	35,573	388 89	41,733

APPENDIX

No. (A) 14.—STATEMENT of Traffic on the undermentioned Canals,

ARTICLES.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
Special Class.		$ cts.		$ cts.		$ cts.
Coal	49,480	9,896 00	322,680	46,195 34	84,949	8,334 16
Kryolite or chemical ore	1,035	51 75	417	40 04		
Iron ore	98,452	4,922 60			17,329	866 45
Stone (unwrought, not suitable for cutting)	210	13 13	1,046	25 35	682	72 17
Ice						
Total, Special Class	149,177	14,883 48	324,143	46,260 73	102,960	9,272 78
Total freight and tolls	606,495	86,760 40	938,053	97,276 90	359,798	24,864 52
Timber and other wood, free			3,205	380 23		
Wheat, corn, flour, iron, salt, coal, &c., free	13,714	2,057 10	267,038	25,353 39		
Grand totals (passengers and tonnage of vessels not included)	620,209	88,817 50	1,208,296	123,010 52	359,798	24,864 52

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

SESSIONAL PAPER No. 20

A—*Continued.*

and the Amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	
2,189	41 08	6	0 10	17,679	614 13	46,386	463 86	.....	.....	510,393
152	2 85	.....	.....	38	1 90	30	0 30	.....	.....	11,852
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,596,549
2,170	21 70	.....	.....	188	2 34	2,304	23 04	.....	.....	5,108
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4,511	65 63	6	0 10	17,905	618 37	48,720	487 20	.....	.....	2,123,902
29,535	1,049 20	400,401	25,627 19	56,226	4,114 44	88,257	3,299 12	36,532	1,063 24	2,820,394
.....	.....	45,461	434 19	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	150	.....	.....	.....	.....	.....	.....
29,535	1,049 20	445,862	26,061 38	56,376	4,114 44	88,257	3,299 12	36,532	1,063 24	2,820,394

RICHARD DEVLIN,
Compiler of Canal Statistics.

SUPPLEMENTARY APPENDIX

No. (A) 15.—Summary Statement of Traffic on the undermentioned Canals during of each description of property passed through

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		$ cts.		$ cts.		$ cts.
Vessels of all kinds	805,580	12,651 87	2,035,322	17,294 59	295,835	3,152 46
	No.		No.		No.	
Passengers	12,117	148 30	85,246	4,436 69	3,587	63 89
Forest—Produce of Wood.	Tons.		Tons.		Tons.	
Bark						
Boat knees					13	1
Floats			860	15 06		
" Free.						
Firewood	6,176	315 68	9,648	208 62	160,044	5,333 53
Hoops and hop poles			35	2 25		
Lumber, sawed	60,018	10,740 94	26,745	908 21	30,575	1,768 21
" Free.			2,635			
Masts, spars, &c			22,948	573 70		
Railway ties	709	56 00	188	7 49	4,587	366 35
" Free.						
Saw logs	2,268	103 58				
" Free.						
Staves, all kinds	1,768	31 12				
Shingles	54	15 60	97	16 49		
Split posts and rails					2	0 27
Timber, square	14,545	2,178 72	5,613	135 42	1,447	72 84
" Free.			504			
Traverses			60	0 75		
Total	85,538	13,441 64	99,333	1,867 99	196,668	7,542 23
Farm Stock.						
Cattle	1	0 15	423	30 60	156	5 42
Hogs			32	2 07		
Horses	4	0 21	788	46 73	44	1 60
Sheep			95	7 05	75	2 69
Total	5	0 36	1,338	86 45	275	9 71
Produce of Animals.						
Bones			16	1 44		
Horns and hoofs, hides and skins (raw)			50	4 29		
Lard and lard oil	2,507	501 40	437	55 62		
" Free.			1,155			
Meats other than pork	121	24 20	11	1 32		
" " Free.			114			
Pork	1,015	202 95	615	43 64		
" Free.			34			
Tallow	666	105 85	82	12 30		
Wool	8	1 35				
Agricultural products not enumerated (animal)			2,956	286 99		
Total	4,317	835 75	5,470	405 60		

A—Continued.

the Season of Navigation ended December 31, 1901, showing the Total Quantity and the amount of Tolls collected thereon.

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	Free.
223,332	284 63	257,558	2,542 18	164,249	1,401 48	120,750	2,416 55	100,165	505 36	2,820,394
No. 19,120	235 71	No. 10,822	152 71	No. 6,199	161 15	.....	.....	No. 23,306	155 16	30,031
Tons.		Tons.		Tons.		Tons.		Tons.		
.....	.....	.....	.....	.....	.....	112	1 12	36	1 37	.....
.....	.....	.....	.....	.....	.....	2	0 02	.....	.....	.....
.....	.....	62,180	517 66	.....	.....	.....	.....	6,328	54 57	.....
.....	.....	27,140	.....	.....	.....	.....	.....	.....	.....	.....
5,277	47 28	12,251	382 35	4,107	72 70	222	2 22	15,675	156 75	3,891
.....	.....	19	1 10	.....	.....	.....	.....	.....	.....	.....
296	3 32	299,475	20,969 41	16,936	1,239 06	16,391	163 91	2,590	51 24	20,990
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	0 19	.....	.....	.....	.....	223	2 23	250	2 50	145
1,284	12 84	75	6 15	533	21 22	30	0 30	886	34 95	5,305
.....	.....	19	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	2,717	61 50	.....	.....	.....	.....	9,156	78 96	3,932
.....	.....	1,182	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
56	4 60	95	12 73	155	37 55	368	3 68	21	1 95	3,851
.....	.....	.....	.....	.....	.....	138	1 38	.....	.....	.....
2,280	28 50	12,070	133 33	40	0 76	629	6 29	631	6 60	3,618
.....	.....	17,120	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9,223	96 73	434,343	22,084 13	21,771	1,371 29	18,115	181 15	35,573	388 89	41,732
10	0 15	492	40 94	2	0 12	11	0 11	14	0 14	286
.....	.....	130	10 57	.....	.....	.....	.....	162	1 62	.....
6	0 12	149	6 78	.....	.....	.....	.....	.....	.....	211
.....	.....	367	32 24	.....	.....	8	0 08	12	0 12	.....
16	0 27	1,138	90 53	2	0 12	19	0 19	188	1 88	497
.....	.....	10	0 71	14	0 62	4	0 04	.....	.....	.....
.....	.....	4	0 28	7	0 18	1	0 01	2	0 02	.....
96	1 86	2	0 20	72	1 92	2	0 02	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	0 04	34	2 03	3	0 05	21	0 21	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	9	0 74	48	1 33	33	0 33	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	29	2 85	2	0 05	.....	.....	.....	.....	.....
5	0 12	.....	.....	.....	.....	.....	.....	.....	.....	1,215
42	0 80	2,351	209 16	1,253	35 30	4	0 04	8	0 24	.....
145	2 82	2,439	215 97	1,399	39 49	65	0 65	10	0 26	1,215

No. (A) 15.—Summary Statement of Traffic on the Undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tols.	Tons.	Tolls.
Agricultural Products.		$ cts.		$ cts.		$ cts.
Agricultural products not enumerated (vegetable)	10	2 00	2,185	257 93		
" " Free.	1					
Apples	5	0 13	703	104 28	480	33 03
Barley	7,119	711 90	18,051	1,511 86	21	0 80
Buckwheat			872	30 83		
Cotton, raw						
Corn	67,756	6,775 60	88,885	2,401 18		
" Free.			19,899			
Flax and hemp			1	0 10		
Flour	18,978	3,516 79	12,491	972 41	494	16 75
" Free.	16		1,490			
Hay, pressed	246	49 20	4,208	195 15	27,295	1,894 79
" Free.			246			
Meals, all kinds	14,019	2,803 48	937	52 95		
" Free.			35			
Manilla	557	83 55	11	2 10		
Oats	28,485	2,868 99	25,525	1,132 08	2,148	71 82
" Free.			1,584			
Pease			6,811	626 77	13	0 44
Potatoes			13	0 94	18	0 61
Rye	2,961	296 10	10,828	672 87		
" Free.			2,961			
Seeds, flax, clover and grass	4,978	496 91	21,734	669 02	19	0 65
" " Free.	302		4,965			
Tobacco, raw	23	4 60	6	0 60		
" Free.			23			
Wheat	151,586	15,197 69	226,862	7,033 55		
" Free.			132,702			
Total	297,042	32,806 94	583,938	15,664 62	30,488	2,018 89
Manufactures.						
Ashes, pot and pearl	3	0 60	69	13 80		
" " Free.			3			
Agricultural implements	1,785	357 00	94	11 10	46	1 58
" " Free.			1,785			
Barrels, empty	316	59 57	522	45 19	23	2 60
" Free.			66			
Bricks	78	1 48	9,135	457 62	299	22 57
" Free.	196					
Cement and water lime	389	44 85	9,450	916 38	6,036	637 89
" " Free.	2,916					
Crockery and earthenware	1	0 15	177	30 75	37	3 70
Furniture	21	3 40	2,006	366 42		
" Free.			5			
Glass of all kinds	62	582	1,377	265 03	3	0 30
" Free.	612		1			
Iron, railway	83	12 45	2,749	344 23		
" " Free.	748					
" pig	3,809	660 85	624	49 59	170	17 00
" all other	2,285	428 22	17,508	1,591 10	745	72 29
" " Free.	4,950		1,178			
Molasses	305	46 60	499	61 56	115	3 92
" Free.	1					
Nails	27	1 70	1,760	283 32	6	0 21
" Free.	675					
Oil	18,337	3,649 55	1,718	270 76	152	10 89
" Free.	83		14,987			
Oil cake	1,415	283	1,395	68 00		
" Free.			1,083			
Paint	144	21 97	622	88 71	1	0 10
" Free.	69		17			

SESSIONAL PAPER No. 20

Canals, and the Amount of Tolls collected, &c.—*Continued.*

Murray Canal.		Ottawa Canals		~~Murray~~ Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste. Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	Free.
356	6 77	13	1 22	.....	.....	98	0 98	.....	.....	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
330	6 29	110	6 43	16	0 45	83	0 83	.....	.....	246
688	12 92	.....	.....	56	1 31	5	0 05	.....	.....	1,759
3	0 06	40	3 84	.....	.....	1	0 01	22	0 22	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	64	1 56	.....	.....	.....	.....	29,188
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	0 10	56	5 55	442	11 19	1,527	15 27	.....	.....	137,407
.....	.....	2,761	224 49	336	8 93	1,739	17 39	.....	.....	1,692
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	0 26	2	0 12	160	3 92	681	6 81	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	2	0 38	1	0 09	26	0 26	.....	.....	175
19	0 36	1,132	77 47	458	13 40	2,518	25 18	.....	.....	12,693
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
376	7 09	27	2 15	11	0 26	.....	.....	3	0 03	.....
.....	.....	148	9 54	.....	.....	4,230	42 30	.....	.....	.....
868	16 32	6	0 59	.....	.....	.....	.....	.....	.....	3,37
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50	0 98	.....	.....	1	0 03	.....	.....	.....	.....	18,173
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	8	0 22	1	0 01	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
914	17 18	.....	.....	465	10 86	.....	.....	544	7 94	289,186
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3,622	68 33	4,297	331 78	2,018	52 22	10,909	109 09	569	8 19	493,894
.....	.....	3	0 57	2	0 36	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	0 03	4	0 76	70	10 03	9	0 09	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	0 42	45	6 46	20	1 49	17	0 17	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	0 65	1	0 96	397	12 09	4,218	42 18	113	1 13	4,422
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	0 42	452	18 59	611	15 55	786	7 86	.....	.....	2,333
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
68	1 72	.....	.....	5	0 45	14	0 14	.....	.....	145
211	5 55	33	5 82	26	2 59	27	0 27	1	0 03	56
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
105	2 64	11	2 09	44	3 92	5	0 05	.....	.....	114
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
136	2 62	10	0 98	6	0 15	.....	.....	.....	.....	16,240
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	0 12	.....	.....	2	0 05	51	51	.....	.....	28,075
427	8 09	25	2 03	375	9 77	.....	.....	.....	.....	5,959
.....	.....	.....	.....	.....	.....	130	1 30	.....	.....	.....
40	1 01	.....	.....	62	5 44	338	3 38	.....	.....	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
155	3 90	.....	.....	78	7 56	93	0 93	.....	.....	682
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
194	4 87	1	0 19	142	12 79	209	2 09	.....	.....	3,302
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	1	0 03	7	0 07	.....	.....	3,864
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
72	1 82	1	0 19	20	1 80	24	0 24	.....	.....	72
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

No. (A) 15.—Summary Statement of Traffic on the undermentioned

Articles.	Welland Canal.		St. Lawrence Canals.		Chambly Canal.	
	Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.
		$ cts.		$ cts.		$ cts.
Pitch and tar	21	4 00	642	65 85	2,301	230 10
" Free.	27					
Rosin	25	3 75	1,333	68 12	2,057	237 24
Soda ash	120	17 42	344	66 55		
" Free.	169		4			
Spirits, whiskey, &c	108	17 07	689	109 04		
" " Free.	131		32			
Steel	68	10 20	804	83 14		
" Free.	3					
Sugar	5,002	772 41	4,708	835 32	569	51 88
" Free.	810		112			
Tin	26	3 90	1,311	261 05		
" Free.	338					
Turpentine			162	8 69	137	13 70
" Free.	1					
White lead			108	18 19		
" Free.	11					
Whiting			282	55 76		
" Free.	49					
Woodenware	124	49 60	101	27 30		
Total	46,343	6,456 16	79,462	6,462 57	12,697	1,305 94
Merchandise.						
Brimstone, crude			85	12 38	168	16 80
" Free.	5					
Clay, lime and sand	475	58 39	36,574	1,549 07	8,715	853 38
" " Free.	2					
Coal	49,480	9,896 00	322,680	46,195 34	84,949	8,334 16
" Free.			80,243			
Dye woods and dye stuffs			78	6 30	36	3 60
Fish	521	78 15	77	6 85		
" Free.	8					
Gypsum			1,390	18 33		
Ores, all kinds	99,487	4,974 35	417	40 04	17,329	866 45
Marble	1,360	204 00	5	0 81		
Rags	47	0 90	239	47 59		
Salt	327	64 14	3,274	375 49	550	49 78
" Free	75		50			
Stone, all kinds	210	13 13	3,692	140 99	702	73 51
All other goods and merchandise (not enumerated)	33,451	5,130 40	17,531	2,665 20	7,221	582 72
" " Free.	1,516		2,420			
Total	186,964	20,419 46	468,755	51,058 39	119,670	10,771 40
Grand totals (passengers and tonnage of vessels not included)	620,209	86,700 48	1,208,296	97,296 90	359,798	24,864 52

Department of Railways and Canals,
Ottawa, September 2, 1902.

SESSIONAL PAPER No. 20

A—*Concluded.*

Canals, and the amount of Tolls collected, &c.—*Concluded.*

Murray Canal.		Ottawa Canals.		Rideau Canal.		St. Peter's Canal.		Trent Valley Canals.		Sault Ste Marie Canal.
Tons.	Tolls.	Tons.	Tolls.	Tons.	Tolls.	Tons	Tolls.	Tons.	Tolls.	Tons.
	$ cts.		$ cts.		$ cts.		$ cts.		$ cts.	Free.
		133	25 37	32	2 84	11	0 11			24
				1	0 09					
32	0 81									
71	1 78	3	0 39	65	5 87	25	0 25			611
48	0 93			16	0 42					3,107
460	11 54	7	0 69	228	21 84	95	0 95			821
58	1 56			3	0 27	25	0 25			10
8	0 20									
				23	2 07	1	0 01			95
28	0 70									
				32	3 20					1
2,198	51 28	729	64 09	2,261	120 67	6,085	60 85	114	1 16	69,969
8	0 16									
61	1 17	2,380	54 65	8,458	202 01	411	4 11			16,829
2,189	41 08	6	0 10	17,679	614 13	46,386	463 86			510,393
				150						
5	0 13	3	0 29							
4	0 08	4	0 24	45	1 09	1,642	16 42			1,268
7	0 14									
152	2 85			38	1 90	30	0 30			1,608,401
						858	8 58			
69	1 74	71	13 31	26	2 64					
237	4 48	20	1 36	1,186	30 03	757	7 57			7,008
2,191	22 23	1	0 19	193	2 46	2,412	24 12			5,128
9,408	235 37	431	75 56	1,150	113 76	568	5 68	78	2 34	64,060
14,331	309 43	2,916	145 70	28,925	968 02	53,064	530 64	78	2 34	2,213,087
29,535	1,049 20	445,862	25,627 19	56,376	4,114 44	88,257	3,299 12	36,532	1,063 24	2,820,394

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 16.—Statement showing the amount of Tolls accrued each month during the Season of Navigation ended December 31, 1901.

Canals and Offices.	January	Feb'y.	April.	May.	June.	July.	August.	September	October.	November	December.	Total.
Welland Canal.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Chippawa					15 50	2 00	3 14	10 82		1 50		32 96
Colborne			503 40	7,023 80	8,858 28	10,406 31	9,484 23	8,070 33	10,058 92	7,980 59	1,747 52	64,133 38
Dalhousie			1,760 20	2,312 91	2,816 70	2,770 07	3,320 54	2,645 35	3,209 39	3,053 21	81 34	21,969 71
Dunnville			75	31 24	88 11	18 83	42 83	49 86	106 42	57 80	2 62	398 46
St. Catharines			2 47	44 00	22 68	42 81	20 41	25 97	34 04	33 59		225 97
Total Welland Canal			2,266 82	9,411 95	11,801 27	13,240 02	12,871 15	10,802 33	13,408 77	11,126 69	1,831 48	86,760 48
St. Lawrence Canals.												
Beauharnois				28 68	39 14	35 55	34 23	37 34	55 41	34 37		264 72
Cardinal				80 98	132 73	169 95	179 33	198 00	110 52	179 09		1,050 60
Cornwall				6,378 65	6,749 90	7,104 65	7,949 25	5,945 90	5,511 93	2,217 58		41,857 86
Kingston			358 76	4,064 94	2,855 66	3,318 18	1,809 12	1,020 45	1,673 43	1,042 36		16,142 90
Lachine				319 92	441 72	661 36	717 48	482 68	415 03	197 97		3,236 16
Montreal				4,037 36	3,676 10	4,166 92	4,873 80	3,124 68	2,719 61	1,921 69	1 00	24,521 16
Soulanges				1,464 03	2,072 13	1,774 72	1,356 43	1,115 61	1,213 65	1,206 93		10,203 50
Total St. Lawrence Canals			358 76	16,374 56	15,967 38	17,231 33	16,919 64	11,924 66	11,699 58	6,799 99	1 00	97,276 90
Chambly Canal.												
Chambly				906 74	1,720 49	1,959 85	1,702 30	1,344 67	1,804 36	1,521 05		10,959 46
St. John's				2,556 86	1,820 21	2,983 32	2,295 97	1,261 58	1,922 80	547 25		13,387 99
St. Ours			5 95	42 12	92 22	74 08	61 75	99 17	94 77	47 01		517 07
Total Chambly Canal			5 95	3,505 72	3,632 92	5,017 25	4,060 02	2,705 42	3,821 93	2,115 31		24,864 52
Ottawa Canals.												
Ottawa			90 00	4,114 09	4,112 99	2,380 37	2,638 25	1,535 25	2,541 88	1,546 45		18,959 28
Carillon				1 44	5 11	7 51	10 97	2 26	7 79	6 98		42 06
Grenville			33 97	445 53	727 27	876 22	900 36	1,322 46	485 79	659 37		5,450 97
Ste. Anne's			1 75	129 51	230 10	229 05	212 34	139 81	108 68	123 64		1,174 88
Total Ottawa Canals			125 72	4,690 57	5,075 47	3,493 15	3,761 92	2,999 78	3,144 14	2,336 44		25,627 19

RIDEAU CANAL.												
Kingston Mills				90 55	98 42	217 88	257 06	191 00	81 33	48 36		984 60
Ottawa			2 75	172 24	269 59	365 20	644 51	338 20	315 69	261 99		2,370 17
Smith's Falls				75 79	88 65	148 77	198 27	125 25	72 32	50 62		759 67
Total Rideau Canal			2 75	338 58	456 66	731 85	1,099 84	654 45	469 34	360 97		4,114 44
ST. PETER'S CANAL.												
St. Peter's	7 40		69 08	355 89	376 11	449 37	569 25	485 55	437 84	322 97	225 66	3,299 12
TRENT VALLEY CANALS.												
Bobcaygeon		25			56 66	96 43	79 60	72 21	84 49	45 55		435 19
Buckhorn				50	7 40	24 63	23 43	10 45	20 90	8 55		95 86
Burleigh				1 75	15 87	19 21	17 59	9 50	11 21	20 90		96 03
Fenelon Falls				6 25	10 60	34 25	27 00	6 00	8 00	3 85		95 95
Hastings					3 60	7 10	2 00	5 00	1 50			19 20
Peterborough			1 20	17 47	44 30	62 36	95 90	50 64	33 35	15 79		321 01
Total Trent Valley Canals		25	1 20	25 97	138 43	243 98	245 52	153 80	159 45	94 64		1,063 24
MURRAY CANAL.												
Brighton			9 33	109 08	164 17	189 37	207 95	173 12	138 48	57 70		1,049 20
Grand total	7 40	25	2,839 61	34,812 32	37,612 41	40,596 32	39,735 29	29,899 11	33,279 53	23,214 71	2,058 14	244,055 09

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

No. (A) 17.—Summary Statement showing the Number, Tonnage and Nationality of Vessels, &c. —*Continued.*

Vessels.	Total Number.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Welland Canal.													$ cts
Canadian vessels, steam	734	83,575	94,020	63,227	2,640	580	.....	1,269	40,361	148,651	137,021	285,672	3,662 72
" sail	367	35,224	41,462	27,177	3,400	.....	308	9	20,345	62,410	65,515	127,925	2,782 87
Total Canadian	1,101	118,799	135,482	90,404	6,040	580	308	1,278	60,706	211,061	202,536	413,597	6,445 59
United States vessels, steam	343	20	18	9,753	614	155,433	161,159	7	20,820	165,213	182,608	347,821	5,223 47
" sail	103	315	240	6,271	501	14,677	13,993	240	7,925	21,503	22,659	44,162	982 81
Total United States	446	335	255	16,024	1,115	170,110	175,152	247	28,745	186,716	205,267	391,983	6,206 28
Grand Total, Welland Canal	1,547	119,134	135,737	106,438	7,155	170,690	175,460	1,525	89,451	397,777	407,803	805,580	12,651 87
St. Lawrence Canals.													
Canadian vessels, steam	3,170	370,418	301,939	30,379	508	.....	.....	389	36,636	401,186	339,083	740,269	4,935 75
" sail	4,525	569,082	443,322	35,400	53	.....	.....	73	70,936	604,555	514,311	1,118,866	10,787 35
Total Canadian	7,695	939,500	745,261	65,779	561	.....	.....	462	107,572	1,005,741	853,394	1,859,135	15,723 10
United States vessels, steam	876	582	293	14,200	86	20,752	22,830	1,612	24,181	37,146	47,390	84,536	503 13
" sail	454	702	6,808	33,861	.....	3,189	769	13,478	32,841	51,230	40,421	91,651	1,068 36
Total United States	1,330	1,284	7,101	48,061	86	23,941	23,599	15,090	57,025	88,376	87,811	176,187	1,571 49
Grand Total, St. Lawrence Canals	9,025	940,784	752,362	113,840	647	23,941	23,599	15,552	164,597	1,094,117	941,205	2,035,322	17,294 59
Chambly Canal													
Canadian vessels, steam	295	33,779	32,628	.....	.....	.....	.....	.....	63	33,779	32,691	66,470	218 20
" sail	421	6,898	7,688	3,807	.....	.....	.....	.....	6,508	10,705	14,196	24,901	310 55
Total Canadian	716	40,677	40,316	3,807	.....	.....	.....	.....	6,571	44,484	46,887	91,371	528 75

United States vessels, steam	26			72					1,002	72	1,002	1,074	15	22
" sail	2,035	188	2,714	98,326	1,049			300	110,812	98,814	114,575	213,389	2,608	49
Total United States	2,061	188	2,714	98,398	1,049			300	111,814	98,886	115,577	214,463	2,623	71
Grand Total, Chambly Canal	2,777	40,865	43,030	102,205	1,049			300	118,385	143,370	162,464	305,834	3,152	46
OTTAWA CANALS.														
Canadian vessels, steam	724	38,772	87,437		628					38,772	88,065	126,837	629	54
" sail	938	6,447	105,882		2,815					6,447	108,697	115,144	1,554	86
Total Canadian	1,662	45,219	193,319		3,443					45,219	196,762	241,981	2,184	40
United States vessels, steam														
" sail	159	2,837	279						12,461	2,837	12,740	15,577	357	78
Total United States	159	2,837	279						12,461	2,837	12,740	15,577	357	78
Grand Total, Ottawa Canals	1,821	48,056	193,598		3,443				12,461	48,056	209,502	257,558	2,542	18
RIDEAU CANAL.														
Canadian vessels, steam	1,586	57,927	57,911	3,602					5,327	61,529	63,238	124,767	821	26
" sail	741	12,306	12,562	3,676					3,785	15,982	16,317	32,329	454	36
Total Canadian	2,327	79,233	70,473	7,278					9,112	77,511	79,585	157,096	1,275	62
United States vessels, steam	49	74	91	331					381	405	472	877	12	25
" sail	138	1,791	2,333	339	1,628				185	2,130	4,146	6,276	113	61
Total United States	187	1,865	2,424	670	1,628				566	2,535	4,618	7,153	125	86
Grand Total, Rideau Canal	2,514	72,098	72,897	7,948	1,628				9,678	80,046	84,203	164,249	1,401	48
ST. PETER'S CANAL.														
Canadian vessels, steam	288	23,342	18,635							23,342	18,635	41,977	839	75
" sail	1,450	37,610	40,230							37,610	40,230	77,840	1,558	14
Total Canadian	1,738	60,952	58,865							60,952	58,865	119,817	2,397	89
United States vessels, steam	4	278	124							278	124	402	8	04
" sail	3	140	391							140	391	531	10	62
Total United States	7	418	515							418	515	933	18	66
Grand Total, St. Peter's Canal	1,745	61,370	59,380							61,370	59,380	120,750	2,416	55

No. (A) 17.—Summary Statement showing the Number, Tonnage and Nationality of Vessels, &c.—*Continued.*

Vessels.	Total Number.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons	Amount of Tolls.
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
Trent Valley Canals.													$ cts.
Canadian vessels, steam	1,435	32,568	32,760							32,568	32,760	65,328	375 51
" sail	576	17,245	17,592							17,245	17,592	34,837	129 85
Total Canadian	2,011	49,813	50,352							49,813	50,352	100,165	505 36
United States vessels, steam													
" sail													
Total United States													
Grand Total, Trent Valley Canals	2,011	49,813	50,352							49,813	50,362	100,165	505 36
Murray Canal.													
Canadian vessels, steam	601	63,446	62,147	42,069	164			82	41,656	105,597	103,967	209,564	230 69
" sail	213	4,053	4,627	2,553				100	1,054	6,706	5,681	12,387	45 18
Total Canadian	814	68,499	66,774	44,622	164			182	42,710	112,303	109,648	221,951	275 87
United States vessels, steam	18	156	114	344	42	39	46	98	205	637	407	1,044	4 26
" sail	18	41	33	102					161	143	194	337	4 50
Total United States	36	197	147	446	42	39	46	98	366	780	601	1,381	8 76
Grand Total, Murray Canal	850	67,696	66,921	45,068	206	39	46	280	43,076	113,083	110,249	223,332	284 63
Sault Ste. Marie Canal.													
Canadian vessels, steam	2,311	182,548	192,736	59,342	48,644	2,720	2,600	67,439	78,157	312,049	322,137	634,186	
" sail	485	40,712	33,643	7,775	23,689			27,971	7,175	76,458	64,507	140,965	
Total Canadian	2,796	223,260	22,6379	67,117	72,333	2,720	2,600	95,410	85,332	388,507	386,644	775,151	

United States vessels, steam	1,125	1,910	2,246	13,100	17,774	650,293	703,781	21,720	12,979	687,023	736,780	1,423,803	
" sail	283	2,553	3,025	470	6,430	78,081	142,129	17,440	666	98,544	152,250	250,794	
Total United States	1,408	4,463	5,271	13,570	24,204	728,374	845,910	39,160	13,645	785,567	889,030	1,674,597	
Grand Total, Sault Ste. Marie Canal	4,204	227,723	231,650	80,687	96,537	731,094	848,510	134,570	98,977	1,174,074	1,275,674	2,449,748	

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

No. (A) 17.—Summary Statement showing the Number, Tonnage and Nationality of Vessels, &c.—*Concluded.*

RECAPITULATION.

Canadian Vessels	Total Number.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
		Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up	Down.		
Steam and Sail.													$ cts.
Welland	1,101	118,799	135,482	90,404	6,040	580	308	1,278	60,706	211,061	202,536	413,597	6,445 59
St. Lawrence	7,695	939,500	745,261	65,779	561			462	197,572	1,005,741	853,394	1,859,135	15,723 19
Chambly	716	40,677	40,316	3,807					6,571	44,484	46,887	91,371	528 75
Ottawa	1,662	45,219	193,319		3,443					45,219	196,762	241,981	2,184 49
Rideau	2,327	70,233	70,473	7,278					9,112	77,511	79,585	157,096	1,275 62
St. Peter's	1,738	60,952	58,865							60,952	58,865	119,817	2,367 89
Trent Valley	2,011	49,813	50,352							49,813	50,352	100,165	505 36
Murray	814	67,499	66,774	44,622	164			182	42,710	112,303	109,648	221,951	275 87
Sault Ste. Marie	2,796	223,260	226,379	67,117	72,333	2,720	2,600	95,410	85,332	388,507	386,644	775,151	No Tolls
Total Canadian	20,860	1,615,952	1,587,221	279,007	82,541	3,300	2,908	97,332	312,003	1,995,591	1,984,673	3,980,264	29,336 58
United States Vessels.													
Welland	446	335	255	16,024	1,115	170,110	175,152	247	28,745	186,716	205,267	391,983	6,206 28
St. Lawrence	1,330	1,284	7,101	48,061	86	23,941	23,599	15,090	57,025	88,376	87,811	176,187	1,571 49
Chambly	2,061	188	2,714	98,398	1,049			300	111,814	98,886	115,577	214,463	2,623 71
Ottawa	159	2,837	279						12,461	2,837	12,740	15,577	357 78
Rideau	187	1,865	2,424	670	1,628				566	2,535	4,618	7,153	125 38
St. Peter's	7	118	515							418	515	933	18 66
Trent Valley													
Murray	36	197	147	446	42	39	46	98	366	780	601	1,381	8 76
Sault Ste. Marie	1,408	4,463	5,271	13,570	21,204	728,374	845,910	39,160	13,645	785,567	889,030	1,674,597	No Tolls.
Total United States	5,634	11,587	18,706	177,169	28,124	922,464	1,044,707	54,895	224,622	1,166,115	1,316,159	2,482,274	10,912 16
Grand total Canadian and United States	26,494	1,627,539	1,605,927	456,176	110,665	925,764	1,047,615	152,227	536,525	3,161,706	3,300,832	6,462,538	40,248 71

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 18.—Comparative Statement of Grand Total Freight passed through the undermentioned Canals during the Seasons of Navigation 1900 and 1901, and the Amount of Tolls collected on the same, including Tolls on Vessels and Passengers.

Canals.	From Canadian to Canadian Ports.		From Canadian to United States Ports.		From United States to United States Ports.		From United States to Canadian Ports.		Tons.		Total Tons.	Amount of Tolls.
	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.	Up.	Down.		
1900.												$ cts.
Welland	8,633	146,031	10,037	4,341	99,560	218,969		231,783	118,230	601,130	719,360	104,116 96
St. Lawrence	168,182	875,505	7,587	705	290	1,177	17,836	237,787	193,895	1,115,171	1,309,066	96,906 58
Chambly	4,350	8,468	222,041	68			25	113,639	226,386	122,175	348,561	24,206 35
Ottawa	299	347,678		41,168					299	388,846	389,145	25,625 28
Rideau	25,832	11,101	10,758	12,782				14,956	36,590	38,842	75,432	6,078 75
St. Peter's	32,705	41,108							32,705	41,108	73,813	3,055 65
Trent Valley	31,886	11,686							31,886	11,686	43,572	1,173 61
Murray	9,776	7,413	1,423	70				395	11,189	7,878	19,067	829 80
Sault Ste. Marie	30,548	183,922	18,217	22,577	468,347	1,119,769	87,291	105,003	604,406	1,431,271	2,035,677	No Tolls.
Grand Total	312,201	1,632,915	270,033	81,714	568,197	1,339,915	105,155	703,563	1,255,586	3,758,107	5,013,693	261,992 98
1901.												
Welland	14,691	184,973	8,113	15,720	83,543	190,476	58	122,635	106,405	513,804	620,209	86,760 48
St. Lawrence	175,915	723,713	7,060		393	3,122	12,717	285,376	196,085	1,012,211	1,208,296	97,276 90
Chambly	5,414	7,115	219,894	1,245				126,100	225,338	134,160	359,798	24,864 52
Ottawa	935	406,988		37,939					935	444,927	445,862	25,627 19
Rideau	18,512	8,701	8,594	3,936				16,633	27,106	29,270	56,376	4,114 44
St. Peter's	35,576	52,681							35,576	52,681	88,257	3,299 12
Trent Valley	26,150	10,382							26,150	10,382	36,532	1,063 24
Murray	8,627	12,814	6,248				490	1,356	15,365	14,170	29,535	1,019 20
Sault Ste. Marie	54,955	278,727	18,540	142,391	423,268	1,608,098	161,450	129,965	661,213	2,159,181	2,820,394	No Tolls.
Grand Total	340,805	1,686,094	268,449	201,231	507,204	1,801,696	177,715	682,065	1,294,173	4,371,086	5,665,259	244,055 09

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

APPENDIX A—*Continued.*

No. (A) 19.—STATEMENT of the number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1901.

WELLAND CANAL.

	CANADIAN.				UNITED STATES.			
	Steam Vessels.		Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	6	48	23	184	13	104	3	24
10	3	30	9	90	4	40	1	10
15	5	75	2	30	2	30	1	15
20	1	20	9	180	7	140		
25	3	75	1	25	1	25		
30	5	150	2	60	3	90		
35	1	35			2	70		
40			3	120	1	40	1	40
45	1	45	3	135	1	45		
50			6	300				
55					1	55		
60			1	60			1	60
70	1	70	1	70				
75			2	150	1	75		
80							1	80
85	1	85	1	85				
95			1	95				
100	1	100	2	200			1	100
110	4	440	1	110	1	110	1	110
130	1	130			2	260	1	130
135	1	135						
140					1	140		
150			1	150				
155	1	155						
160			1	160	1	160		
165	1	165						
175					2	350		
190			1	190	1	190		
195			1	195				
220	3	660						
230	1	230					1	230
260	1	260			1	260		
265							1	265
270			1	270			1	270
280	1	280					1	280
285			1	285				
290	1	290	1	290				
295	1	295						
300					1	300		
305	1	305						
310	1	310					3	930
315			1	315			1	315
320			1	320				
330			1	330				
335			1	335				
360	2	720						
400	1	400			2	800		
405	1	405					1	405
415							1	415
435	1	435	1	435			1	435
455	1	455						
460	1	460						
485	1	485					1	485
495	1	495						
500	1	500					1	500
510							1	510
520							1	520
525							1	525
530	1	530						
540	1	540			1	540		

APPENDIX A—*Continued.*

No. (A) 19.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1901.

WELLAND CANAL.

CANADIAN.					UNITED STATES.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
555	1	555						
560	1	560					1	560
575	2	1,150						
585							1	585
590			1	590			1	590
595					1	595		
600	1	600					2	1,200
615					1	615	1	615
640							1	640
645			1	645				
660					1	660		
665					1	665		
675			1	675				
690							1	690
719			1	719				
723					1	723		
739			1	739				
742	1	742						
771	1	771						
802			1	802				
870	1	870						
882			1	882				
908			1	908				
929	1	929						
940					1	940		
950	1	950			2	1,900		
957					1	957		
977	1	977						
989	1	989						
994	1	994					2	1,988
1,023	1	1,023						
1,029					1	1,029		
1,035	1	1,035			2	2,070		
1,041			1	1,041	1	1,041		
1,054					1	1,054		
1,078					1	1,078		
1,079					1	1,079		
1,083							1	1,083
1,118					1	1,118		
1,160							2	2,320
1,172	1	1,172						
1,203					1	1,203		
1,207					1	1,207		
1,330					3	3,990		
1,425	1	1,425			1	1,425		
1,441	2	2,882			4	5,764		
1,547					3	4,641		
1,548					1	1,548		
1,550					1	1,550		
1,553					2	3,106		
1,565					1	1, 65		
1,762					2	3,524		
Total...	77	27,837	88	12,170	86	48,871	40	16,925

APPENDIX A—*Continued.*

No. (A) 20.—Statement of Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1901.

St. Lawrence Canals.

	Canadian.				United States.			
	Steam Vessels.		Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	61	488	31	248	8	64	1	8
10	3	30	5	50	4	40		
15	11	165	5	75	3	45		
20	7	140	5	100	2	40	1	20
25	8	200	5	125	1	25		
30	13	390	5	150	1	25		
35	5	175	2	70	2	70		
40	4	160	7	280	2	80	1	40
45	4	180	2	90				
50	4	200	7	350			3	150
55	4	220	1	55				
60	5	300	7	420				
65	1	65						
70	3	210	2	140				
75	1	75	4	300				
80	1	80	6	480				
85	2	170	2	170			2	170
90	2	180	2	180			6	540
95	4	380	4	380			25	2,375
100	5	500	15	1,500			31	3,100
105	6	630	5	525			5	525
110	2	220	7	770	1	110	4	440
115	2	230	5	575	1	115	2	230
120	3	360	7	840	3	360	1	120
125			3	375				
130	3	390	5	650			1	130
135	2	270	7	945				
140			8	1,120				
145	3	435	14	2,030				
150	1	150	19	2,850				
155	2	310	30	4,650			2	310
160	1	160	8	1,280				
165	1	165	10	1,650				
170	2	340	1	170	1	170		
175			4	700				
180			5	900				
185			10	1,850	1	185	1	185
190	2	380	2	380				
195	1	190						
200	3	600					2	400
220			1	220				
225			1	225				
230			4	920				
245			1	245	1	245		
255								
260	1	260	2	520				
265			2	530				
270			1	270				
275			1	275				
280	1	280	1	280			1	280
290	1	290	1	293			2	580
300	2	600	6	1,800				
305			4	1,220				
310					1	310		
315			4	1,260			1	315

APPENDIX A—*Continued.*

No. (A) 20.—Statement of Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1901.

St. Lawrence Canals.

Canadian.					United States.			
Steam Vessels.			Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage	Number.	Total Tonnage.	Number.	Total Tonnage.
320			7	2,240				
325	1	325	1	325				
330			1	330				
335	1	335	1	335			1	335
340	2	680	3	1,020	1	340	1	340
345	1	345	1	345				
350								
360	2	720	1	360				
365			2	730				
370			3	1,110				
375	1	375	1	375				
385			2	770				
415			2	830				
420			2	840				
435			4	1,740			1	435
440			4	1,760			2	880
475							1	475
485	1	485	5	2,425				
500	3	1,500	2	1,000				
508	1	508						
516			1	516				
518			1	518				
541	1	541	5	2,705				
567			1	567				
570	3	210						
578			1	578				
586	1	586	1	586				
590			1	590				
593	1	593						
599	1	599						
607			2	1,214				
614			1	614				
636	1	636					1	636
680			2	1,360				
691							1	691
725	1	725						
870	1	870						
920	1	920						
955	1	955	1	955				
1,041			1	1,041				
1,075					1	1,075		
1,083			1	1,083				
1,167			1	1,167				
1,182	1	1,182						
1,222					1	1,222		
1,237					1	1,237		
1,284					1	1,284		
1,311					1	1,311		
1,323					1	1,323		
1,496					4	5,984		
1,565					1	1,565		
1,762					1	1,762		
Total....	213	23,658	358	65,507	45	18,987	100	13,710

APPENDIX A—*Continued.*

No. (A) 21.—STATEMENT of the Number and Tonnage of all kinds of Vessels passed through the Canals during the Season of Navigation in 1901.

RIDEAU, OTTAWA AND CHAMBLY CANALS.

	CANADIAN.				UNITED STATES.			
	Steam Vessels.		Sailing Vessels.		Steam Vessels.		Sailing Vessels.	
Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.	Number.	Total Tonnage.
8	19	152	28	224	7	56	2	16
10	6	60	2	20	1	10		
15	7	105	4	60	1	15		
20	5	100			2	40		
25	2	50			1	25		
30			1	30				
35			1	35				
40	3	120	3	120			1	40
45			1	45				
50	1	50	3	150			1	50
55	4	220	2	110				
60			5	300				
65					1	65		
70								
75			1	75				
80			2	160				
85			1	85			10	850
90			5	450			18	1,620
95							130	12,350
100	3	300	3	300			195	19,500
105	3	315	3	315			43	4,515
110			1	110			38	4,180
115							20	2,300
120			3	360			7	840
125	2	250	3	375			3	375
130	1	130					4	520
135			5	675			1	135
140	1	140	4	560				
145	3	435	9	1,305			1	145
150	1	150	8	1,200				
155	2	310	27	4,185				
160			9	1,440				
165	1	165	9	1,485				
170			3	510				
175	1	175	4	700				
180			3	540				
185			2	370				
190								
195			1	195				
228	1	228	1	228				
258			1	258				
262	1	262						
298	1	298						
312	1	312						
324	1	324						
374	1	374						
397	1	397						
Total.....	72	5,422	158	16,975	13	211	474	47,436

RICHARD DEVLIN,
Compiler of Canal Statistics.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, Sept. 2, 1902.

APPENDIX A—*Concluded.*

No. (A) 22.—Statement showing the Classified Tonnage of all kinds of Vessels passed through the Canals, during the Season of Navigation of 1901.

WELLAND CANAL.

Canadian.								United States.							
Class.	Steam Vessels.	No.	Tonnage.	Class.	Sailing Vessels.	No.	Tonnage.	Class.	Steam Vessels.	No.	Tonnage.	Class.	Sailing Vessels.	No.	Tonnage.
1	250 to 1,441 tons...	37	25,189	1	250 to 1,041 tons...	17	9,581	1	250 to 1,762 tons..	42	46,947	1	250 to 1,160 tons..	28	16,126
2	200 " 249 " ..	4	890	2	200 " 249 " ..	.....	.....	2	200 " 249 " ..	.....	.....	2	200 " 249 " ..	1	230
3	150 " 199 " ..	2	320	3	150 " 199 " ..	4	695	3	150 " 199 " ..	4	700	3	150 " 199 " ..	.....	.....
4	100 " 149 " ..	7	805	4	100 " 149 " ..	3	310	4	100 " 149 " ..	4	510	4	100 " 149 " ..	3	340
5	50 " 99 " ..	2	155	5	50 " 99 " ..	12	760	5	50 " 99 " ..	2	130	5	50 " 99 " ..	2	140
6	Under 50 " ..	25	478	6	Under 50 " ..	52	824	6	Under 50 " ..	34	584	6	Under 50 " ..	6	89
	Total.....	77	27,837		Total.....	88	12,170		Total.....	86	48,871		Total.....	40	16,925

ST. LAWRENCE CANALS.

1	250 to 1,182 tons...	31	14,520	1	250 to 1,167 tons...	84	36,474	1	250 to 1,762 tons..	14	17,413	1	250 to 691 tons...	12	4,967
2	200 " 249 " ..	3	600	2	200 " 249 " ..	7	1,610	2	200 " 249 " ..	1	245	2	200 " 249 " ..	2	400
3	150 " 199 " ..	10	1,695	3	150 " 199 " ..	89	14,430	3	150 " 199 " ..	2	355	3	150 " 199 " ..	3	495
4	100 " 149 " ..	26	3,035	4	100 " 149 " ..	76	9,130	4	100 " 149 " ..	5	585	4	100 " 149 " ..	44	4,545
5	50 " 99 " ..	27	1,880	5	50 " 99 " ..	35	2,475	5	50 " 99 " ..	.....	.....	5	50 " 99 " ..	36	3,235
6	Under 50 " ..	116	1,928	6	Under 50 " ..	67	1,488	6	Under 50 " ..	23	389	6	Under 50 " ..	3	68
	Total.....	213	23,658		Total.....	358	65,507		Total.....	45	18,987		Total.....	100	13,710

RIDEAU, OTTAWA AND CHAMBLY CANALS.

1	250 to 397 tons...	6	1,967	1	250 to — tons .	1	258	1	250 to — tons..	.....	.....	1	250 to — tons..	.....	.....
2	200 " 249 " ..	1	228	2	200 " 249 " ..	1	228	2	200 " 249 " ..	.....	.....	2	200 " 249 " ..	.....	.....
3	150 " 199 " ..	5	800	3	150 " 199 " ..	66	10,625	3	150 " 199 " ..	.....	.....	3	150 " 199 " ..	.....	.....
4	100 " 149 " ..	13	1,570	4	100 " 149 " ..	31	4,000	4	100 " 149 " ..	.....	.....	4	100 " 149 " ..	312	32,510
5	50 " 99 " ..	5	270	5	50 " 99 " ..	19	1,330	5	50 " 99 " ..	1	65	5	50 " 99 " ..	159	14,870
6	Under 50 " ..	42	587	6	Under 50 " ..	40	534	6	Under 50 " ..	12	146	6	Under 50 " ..	3	56
	Total	72	5,422		Total.....	158	16,975		Total.....	13	211		Total	474	47,436

Department of Railways and Canals,
Ottawa, September 2, 1902.

RICHARD DEVLIN,
Compiler of Canal Statistics.

CANALS

CONSOLIDATED

No. 23.—RATES OF TOLLS ON THE CANALS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS.

(O. C., April 18, 1873.)

The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock.	Rideau Canal, each way.	Ottawa Canals, and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
Class No. 1.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Vessel, steam.....per ton	01½	0 01½	0 02¼	0 00¾	0 00¾	0 01½	0 00⅝	0 01½	0 3/32
" sail and other.....	0 02¼	0 02¼	0 03¾	0 01½	0 01¼	0 02¼	0 01	0 02⅝	0 1/16
Class No. 2.									
Passengers, 21 years of age and upwards...	0 10	0 10	0 20	0 10	0 05	0 08	0 02¼	0 09¾	0 1¼
" under 21 years each.....	0 05	0 05	0 10	0 05	0 02	0 04	0 01¼	0 04½	0 0⅝
Class No. 3.									
Bricks, cement and water lime.....									
Clay, lime and sand.....									
Brimstone.....									
Corn.....									
Flour.....									
Iron, railway.....									
" pig.....									
" all other, including steel (O.C., Feb. 1, 1888).....	15	0 20	0 20	0 15	0 10	0 07	0 06	0 19¾	0 1⅞
Plaster, gypsum.....									
Salt.....									
Salt meats or fish, in barrels or otherwise...									
Agricultural products, vegetable, not enumerated.....									
Agricultural products, animal, not enumerated.....									
Stone, for cutting.....									
Wheat.....									
Class No. 4.									
All other articles not enumerated.....	0 15		0 20	0 20	0 10	0 26	0 14	0 29	0 2½

REVENUE

TARIFF OF TOLLS

OF THE DOMINION OF CANADA, 1901.

TRENT VALLEY CANALS.

(O. C., July 25, 1888.)

1st Section.	2nd Section.	3rd Section.	4th Section.	Through.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	Tolls Chargeable at Peterborough and Hastings.
Tolls Chargeable at Fenelon Falls.	Tolls Chargeable at Bobcaygeon.	Tolls Chargeable at Buckhorn.	Tolls Chargeable at Burleigh.	Tolls Chargeable at Fenelon Falls.	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
0 00 3/16 0 00 1/4	0 00 3/16 0 00 1/4	0 00 3/16 0 00 1/4	0 00 3/16 0 00 1/4	0 00 3/4 0 01	0 00 3/16 0 00 1/4
01 0 00 1/2	0 01 0 00 1/2	0 01 0 00 1/2	0 01 0 00 1/2	0 04 0 02	0 01 0 00 1/2
0 01	01	01	01	0 04	0 01
0 03	0 03	0 03	0 03	0 12	0 03

2-3 EDWARD VII., A. 1903

RATES OF TOLLS

WELLAND, ST. LAWRENCE, RIDEAU, OTTAWA, CHAMBLY AND MURRAY CANALS

The Rates of Tolls are divided into Six Classes, as under, and are per ton, unless otherwise specified.	Welland Canal, westward.	Welland Canal, eastward.	Lake Erie to Montreal.	St. Lawrence Canals, each way.	Chambly Canal and St. Ours Lock, each way.	Rideau Canal, each way.	Ottawa Canals and St. Ann's Lock, each way.	Ottawa to St. Johns, each way.	Murray Canal, each way.
Class No. 5.									
Bark	0 20	0 20	0 20	0 15	0 10	0 07	0 06	0 19½	0 01¾
Barrels, empty, each	0 02	0 02	0 02	0 02	0 02	0 02	0 01	0 03½	0 00¼
Boat knees, each	0 05	0 05	0 05	0 02	0 02	0 02	0 01	0 03½	0 00¼
Floats, per 1,000 lineal feet	1 40	1 40	1 40	1 40	1 20	1 05	0 50	2 05	0 17½
Firewood, per cord, in vessels	0 20	0 20	0 20	0 20	0 10	0 15	0 08	0 23	0 02½
" " rafts	0 25	0 25	0 25	0 25	0 15	0 19	0 09	0 30¼	0 03⅛
Hoops	0 25	0 25	0 25	0 20	0 15	0 15	0 10	0 30	0 02½
Masts and spars, telegraph poles, per ton of 40 cubic feet, in vessels	0 15	0 15	0 15	0 05	0 05	0 08	0 07	0 13¼	0 00⅝
Masts and spars, telegraph poles, per ton of 40 cubic feet, in rafts	0 20	0 20	0 20	0 10	0 10	0 15	0 10	0 22½	0 01¼
Railway ties, in vessels, each	0 01	0 01	0 01	0 00½	0 00½	0 00¾	0 00⅜	0 01⅜	0 0⅛
" rafts, each	0 02	0 02	0 02	0 01	0 01	0 02	0 01	0 02¼	0 00⅜
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in vessels	0 30	0 30	0 30	0 15	0 10	0 11¼	0 06⅜	0 20	0 01⅞
Sawed stuff, boards, plank, scantling and sawed timber, per M feet, board measure, in rafts	0 60	0 60	0 60	0 30	0 20	0 19	0 09	0 36½	0 03⅜
Square timber, per M cubic feet, in vessels	3 00	3 00	3 00	1 00	1 00	0 56	0 44	1 69	0 12½
" " rafts	4 50	4 50	4 50	2 00	2 00	1 12	0 63	3 13	0 25
Wagon stuff, woodenware and wood, partly manufactured, per ton of 40 cubic feet	0 40	0 40	0 40	0 40	0 25	0 30	0 20	0 55	0 05
Shingles, per M	0 06	0 06	0 06	6 04	0 04½	0 02½	0 08	0 08	0 00¾
Split posts and fence rails, per M, in vessels	0 40	0 40	0 40	0 40	0 20	0 23	0 12	0 42	0 05
" " " rafts	0 80	0 80	0 80	0 80	0 40	0 38	0 17	0 77	0 10
Saw-logs, each, standard log	0 08	0 08	0 08	0 08	0 05	0 06	0 06	0 13	0 01
Staves and headings, barrel, per M	0 08	0 08	0 08	0 04	0 15	0 15	0 10	0 30	0 02½
" " pipe, per M	1 50	1 50	1 50	1 00	1 00	0 75	0 50	1 75	0 12½
" " West India, per M	0 75	0 75	0 75	0 60	0 25	0 45	0 25	0 65	0 07½
" " salt barrel, sawn or cut, per M	0 08	0 08	0 08	0 04	0 03	0 03	0 02	0 06	0 00½
Traverses, per 100 pieces	0 50	0 50	0 50	0 50	0 40	0 38	0 15	0 67½	0 06¼
Hop poles, per 1,000 pieces	2 00	2 00	2 00	2 00	1 50	1 50	0 65	2 65	0 25
Special Class.									
Gypsum, crude (per O.C., Oct. 28, 1892)	0 15	0 05	0 05	0 05	West ward				
Coal	0 20	0 20	0 20	0 15	0 10	0 08	0 05	0 17¾	0 01⅞
Stone, unwrought, carded, and not suitable for cutting, per cord	0 75	0 75	0 75	0 60	0 37½	0 28	0 24	0 77½	0 07½
Kryolite, iron ore or chemical ore	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 05
Ice	0 05	0 05	0 05	0 05	0 05	0 05	0 05	0 11	0 05

SESSIONAL PAPER No. 20

ON THE CANALS—*Continued.*

TRENT VALLEY CANALS.

1st section.	2nd section.	3rd section.	4th section.	Through.	Peterborough to Hastings, each way.
Fenelon Falls to Bobcaygeon.	Bobcaygeon to Buckhorn.	Buckhorn to Burleigh.	Burleigh to Lakefield.	Fenelon Falls to Lakefield.	
Tolls Chargeable at Fenelon Falls.	Tolls Chargeable at Babcaygeon.	Tolls Chargeable at Buckhorn.	Tolls Chargeable at Burleigh.	Tolls Chargeable at Fenelon Falls.	Tolls Chargeable at Peterborough and Hastings.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
0 01	0 01	0 01	0 01	0 04	0 01
0 00¼	0 00¼	0 00¼	0 00¼	0 01	0 00¼
0 00¼	0 00¼	0 00¼	0 00¼	0 01	0 00¼
0 13	0 13	0 13	0 13	0 52	0 13
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 02	0 02	0 02	0 02	0 08	0 02
0 02	0 02	0 02	0 02	0 08	0 02
0 01	0 01	0 01	0 01	0 04	0 01
0 00⅛	0 00⅛	0 00⅛	0 00⅛	0 00½	0 00⅛
0 00¼	0 00¼	0 00¼	0 00¼	0 01	0 00¼
0 03	0 03	0 03	0 03	0 10	0 03
0 04	0 04	0 04	0 04	0 14	0 04
0 07	0 07	0 07	0 07	0 28	0 07
0 14	0 14	0 14	0 14	0 56	0 14
0 04	0 04	0 04	0 04	0 16	0 04
0 00¾	0 00¾	0 00¾	0 00¾	0 03	0 00¾
0 03	0 03	0 03	0 03	0 12	0 03
0 05	0 05	0 05	0 05	0 20	0 05
0 00¾	0 00¾	0 00¾	0 00¾	0 03	0 00¾
0 02	0 02	0 02	0 02	0 08	0 02
0 10	0 10	0 10	0 10	0 40	0 10
0 05½	0 05½	0 05½	0 05½	0 22	0 05½
0 00½	0 00½	0 00½	0 00½	0 02	0 00½
0 05	0 05	0 05	0 05	0 20	0 05
0 20	0 20	0 20	0 20	0 80	0 20
Free.	Free.	Free.	Free.	Free.	Free.
0 01	0 01	0 01	0 01	0 04	0 01
0 03½	0 03½	0 03½	0 03½	0 14	0 03½
0 00¾	0 00¾	0 00¾	0 00¾	0 03	0 00¾
Free.	Free.	Free.	Free.	Free.	Free.

St. Peter's Canal.

Sec. **2.** On each and every vessel passing through the said canal, two cents per ton on the vessel and one cent per ton on the freight, each way. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 109.

SPECIAL REGULATIONS RELATING TO TOLLS ON SOME OF THE CANALS.

Sec. **3.** Coal may pass up all canals, except the Welland Canal, free of toll. O. C. June 6, 1869 Con O. C. Oct. 26, 1889, sec. 83.

Sec. **4.** Logs, lumber or other produce may pass free of toll down the Chippawa Creek, between the Aqueduct and Port Robinson. O. C. May 18, 1863. Con. O. C. Oct. 26, 1889, sec. 84.

Sec. **5.** (*a.*) In view of the dam constructed across the Ottawa River at Carillon whereby the passage of the rapids at that point through the river is rendered difficult and at times impracticable, it appears necessasy, owing to the continued difficulty attending passage through the slide built in the dam, that the canal should be used by rafts and until otherwise ordered, free passage be given to rafts through the Carillon Canal, subject to such regulations as the Department of Railways and Canals may find necessary in the interest of the traffic of the canal to adopt. O. C. July 6, 1888.

Sec. **5.** (*b.*) "Save in cases for which special permission may be given the Grenville Canal is closed to the passage of rafts, or any portion of a raft of any kind whatever." O. C. June 27, 1890.

Sault Ste. Marie Canal.

Sec. **6.** All vessels and freight shall be permitted to pass through the Sault Ste. Marie Canal free of toll upon such vessels and freight, until otherwise ordered.

Sec. **7.** (*a.*) All up bound goods on which full tolls have been paid for passage through the whole of the St. Lawrence Canals, or for passage through the Lachine Canal, the Ottawa and Rideau Canals or for passage through the Ottawa and Rideau Canals shall be entitled to pass free through the Welland Canal, or any portion thereof, and tolls paid for passage through the Chambly Canal, on goods thereafter so becoming entitled to the above privilege, shall be refunded at Montreal. All down bound goods on which full tolls have been paid for passage through the Welland Canal shall be entitled to pass free through any or all of the above mentioned Canals, or through any portion thereof. O. C. May 17, 1897.

(*b.*) All articles, goods or merchandise, not enumerated above, shall be charged to class No. 4. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec. **8.** Goods shipped to any port west of the St. Lawrence Canals, tolls upon which have already been paid for passage through such canals, may be re-shipped from such port and be passed through the Welland Canal free of tolls, in the same way as if they had been shipped through direct in the first instance; and goods going eastward, having paid Welland Canal tolls, may be transhipped at any port on Lake Ontario, and thereafter pass free through the St. Lawrence Canals, as if they had been shipped through direct in the first instance. O. C. June 23, 1883. Con. O. C. Oct. 26, 1889, sec. 87.

Sec. **9.** Iron ore, kryolite or chemical ore, may pass through one section, or through all the cana sections aforesaid, for 5 cents per ton.

Sec. **10.** No let-passes shall be issued to steam tugs or other small vessels for less than 25 cents, as a minimum charge; but such vessels, not carrying freight or passengers, can obtain, on payment of $30 a season "Let-Pass," which will pass them up and down the canals as often as desired. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889, sec. 86.

Sec **11.** All vessels owned or chartered by persons having contracts for the enlargements or repair of any of the canals, and employed by them in removing earth or carrying materials necessary for the prosecution of such works, shall be entitled to pass through such canals free of toll upon such vessel and cargo. O. C. April 22, 1884. Con. O. C. Oct. 26, 1889, sec. 35.

Sec. **12.** Government dredges and scows shall be permitted to pass through the canals free of tolls, but that such dredges and scows shall not be so passed as to interfere with the passage of other vessels of any kind whatever. O. C. May 18, 1891.

HARBOUR DUES.

Sec. **13.** Vessels receiving or discharging freight at the premises of the Welland Railway, at Ports Colborne or Dalhousie, are to be free from harbour dues; but all other vessels discharging or receiving cargo at Port Dalhousie, Port Colborne or Port Maitland, shall pay on every ton of freight so received or discharged, two cents. O. C. April 18, 1873. Con. O. C. Oct. 26, 1889.

WAY RATES.

Sec. **14.** The following way rates are to be levied on vessels and property passing the several subdivisions of the Canals:—

Welland Canal.

	Rate.
1. From Port Maitland, Dunnville and Port Colborne to Port Robinson or Allanburg, not passing the lock, each way	1/2
2. From Chippawa Cut, or any part thereof, to Dunnville, Port Maitland or Port Colborne	1/2
3. From Dunnville to Port Colborne	1/2
4. From Thorold to St. Catharines or Fort Dalhousie	1/2
5. From Maitland, Dunnville, Colborne or Port Robinson to Marshville and intermediate places	3/8
6. From Marshville or intermediate places to Port Maitland, Dunnville, Port Colborne and Port Robinson	3/8
7. From Port Robinson to Allanburg or Thorold	3/8
8. From Port Robinson to St. Catharines or Port Dalhousie	1/2
9. From St. Catharines to Port Dalhousie	1/8
10. From Dunnville to Maitland	1/4
11. From Port Robinson through the Lock and Chippawa Cut	1/4
12. Form Port Colborne to Port Maitland	1/2
13. From Chippawa Cut through Lock to Port Robinson	1/4
14. From Colborne, Dunnville, Maitland and Marshville to Thorold	1/8
15. From Colborne, Dunnville, Maitland and Marshville to St. Catharines	1/4
16. Through the Chippawa Cut only	1/8
17. Through the Port Robinson Lock only	1/8

St. Lawrence Canals.

Sec. **15.** The navigation is divided into four sections, viz., Cardinal, Cornwall, Beauharnois or Soulanges and Lachine. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Chambly Canal.

	Rate.
Sec. **16.** Vessels and property passing from Sorel to Chambly, to pay	1/3
Vessels and property passing from Chambly to St. Johns, to pay	2/3

Ottawa Canals.

Sec. **17.** The navigation is divided into three sections, viz., Grenville, Carillon and Ste. Anne's. Tolls are to be levied on all vessels and property in proportion to the number of sections passed through.

Rideau Canal.

Sec. **18.** The navigation of this canal is divided into three sections, viz., Ottawa, Smith's Falls and Kingston Mills. Vessels and freight passing one section are to be charged one-third; two sections, two-thirds. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, secs. 77, 78, 79, 80 and 81.—

Tay Canal to be part of the Rideau Canal and the following rates of tolls to be levied upon the said Tay Branch of the Rideau Canal system, viz.:—

Perth to Smith's Falls, 1 section, or one-third of Rideau Canal rates, each way.

Perth to Kingston, 2 sections, or two-thirds Rideau Canal rates, each way.

Perth to Ottawa Basin, 2 sections, or two-thirds Rideau Canal rates, each way.

Perth to River Ottawa, 3 sections, full Rideau Canal rates, each way. O.C. Sept. 27, 1890.

General.

Sec. **19.** (*a.*) Any fraction of a ton freight is to be charged one ton, and portions of sections are to be charged as a whole section on all the above canals.

(*b.*) The passing of saw-logs or other lumber through any of the canals, or sections thereof, shall be at all times governed by the regulations for their management. O.C. April 18, 1873. Con. O.C. Oct. 26, 1889, sec. 82.

Sec. 20.—STANDARD FOR ESTIMATING WEIGHTS, FOR CANAL TOLLS.

——	Tons.	——	Tons.
2,000 lbs. avoirdupois	1	Sheep, 20	1
Per M. is per thousand feet		Stone, 12 cubic feet	1
Per millie is per thousand pieces		Stone, 1 cord	7½
Green fruit, 9 barrels are	1	Whisky, 4 barrels or 215 gallons	1
Ashes, 3 barrels are	1	Empty barrels, 10	1
Bark, 4 cords	1	Barrel hoops, 10 mille	1
Beef, 7 barrels	1	Board and other sawed lumber, 600 feet board measure	1
Biscuit and crackers, 9 barrels	1	Boat knees, 4	1
Bricks, common, 1,000	2	Firewood, 1 cord	3
Butter, 22 kegs or 7 barrels	1	Hop poles, 60 or cubic feet	1
Cattle, 3	1	Shingles, 12 M. or bundles	1
Cement and water lime, 7 barrels	1	Split posts and fence rails, 1 mille	1
Fire-bricks, 1,000	3	Staves and headings, pipe, 1 mille	8
Fish, 7 barrels	1	" " W. India, 1 mille	4
Flour, 9 barrels	1	" " barrel, 1 mille	2½
Gypsum and manganese, 6 barrels	1	" " salt barrel, 1 mille	0½
Horses, 2	1	Saw-logs, standard, 1	0⅞
Lard and tallow, 7 barrels or 22 kegs	1	Square timber, 50 cubic feet	1
Liquors and spirits, 215 gallons	1	Telegraph poles, 10, or 40 cubic feet	1
Liquids, all others, 215 gallons	1	Masts and spars, 40 cubic feet	1
Nuts, 9 barrels	1	Railroad ties, 16, or 50 cubic feet	1
Oysters, 6 barrels	1	All other woodenware, or partly manufactured wood, 40 cubic feet as per tariff	1
Pork, 7 barrels	1	Traverses, 40 cubic feet, or 5 pieces	1
Refined oil in bulk, 250 gals., O.C., July 24, '00	1	Floats, 50 lineal feet	1
Salt, 7 barrels	1		
Seeds, 9 barrels	1		

NOTE.—By the Weights and Measures Act, chapter 104 of the Revised Statutes of Canada, section 14, all the following named articles are to be estimated by the cental of 100 lbs.

The weight equivalent to a bushel being as follows:—Wheat, 60 lbs.; Indian corn, 56 lbs.; rye, 56 lbs.; pease, 60 lbs.; barley, 48 lbs.; oats, 34 lbs.; beans, 60 lbs.; clover seed, 60 lbs.; timothy seed, 48 lbs.; buckwheat, 48 lbs.; flax seed, 50 lbs.; blue grass seed, 14 lbs.; hemp seed, 44 lbs.; malt, 36 lbs.; castor beans, 40 lbs.; potatoes, turnips, carrots, parsnips, beets and onions, 60 lbs.; bituminous coal, 70 lbs.

TOLLS AT SHEDS AT LACHINE CANAL BASIN.

Sec. 21. The following tolls shall be levied upon property stored at the sheds at the Lachine Canal Basin:—

		Cents.
Wheat and other grain, per week,	per bushel	1
Meal "	per barrel	4
Pork, beef, butter and lard "	"	5
Muscovado sugar "	per hhd., 10 cents; per brl	5
Liquors "	per pipe, 15 cents; per pun	12
	per hhd., 10 cents; per qr. cask	7
Iron, bars "	per ton	24
Iron, pig "	"	12
Salt, except at the St. Gabriel sheds "	per 100 minots	36
Salt at the St. Gabriel sheds, Montreal, after the first 48 hours "	per bag	½
Bales, crates, cases, &c. "	per ton weight or measurement	24
Coals "	per chaldron	12

Sec. 22. (*a.*) No charge shall be made for property stored in the sheds of the Lachine Canal Basin for the first forty-eight hours, after which period, except in the case of flour, the foregoing rate of storage for the use of the sheds are to be raised, levied and collected.

(*b.*) Articles unenumerated are to be charged according to the above rates as nearly as the same can be computed.

(*c.*) All property stored in the sheds remaining after the first forty-eight hours will be liable to one week's storage, although it should only have been stored for a portion of the same, and so on for each succeeding week.

(*d.*) The labour of receiving property into the sheds and delivering the same shall be at the expense of and be furnished by the owners of the property or their agents.

(*c.*) All property stored in these sheds shall be at the risk of the proprietor from damage by fire or otherwise.

(*f.*) All dues for storage shall be paid before the removal of the property. O. C. August 21, 1846, October 28, 1846. Con. O. C. Oct. 26, 1889, secs. 90 and 91.

Flour.

Sec. **23.** (*a.*) Flour shall be allowed to remain in the sheds for two whole days free of charge.

(*b.*) If kept there beyond two days or 48 hours, such flour shall be liable to a charge of one cent per day per barrel for the first four days after the expiration of the 48 hours of the exemption.

(*c.*) Should the flour be kept in the sheds beyond four days at one cent per day per barrel, it shall be liable to pay two cents per day per barrel for every day subsequent to the expiration of such four days.

(*d.*) Any part of a day shall be considered as one day. O. C. May 31, 1856. Con. O. C. Oct. 26, 1889, sec. 92.

WHARFAGE DUES ON COAL FOR LOCAL CONSUMPTION IN MONTREAL.

Sec. **24.** Coal for local consumption in Montreal, landed on canal property between Montreal Harbour and Côte St. Paul, from vessels other than sea-going, and entering the Lachine Canal from Montreal Harbour, shall be charged wharfage dues at the rate of five cents a ton.

Coal screening shall be charged 3 cents a ton. Con. O. C. Oct. 26, 1889, sec. 93. O. C. May, 18, 1892.

CHARGES FOR WHARFAGE ON FIREWOOD ON WHARFS AND BANKS OF LACHINE CANAL.

Sec. **25.** The following rates of tolls shall be collected as herein mentioned that is to say:—

(*a.*) Firewood landed on wharfs or banks of the Lachine Canal, or in boats, barges or other craft occupying any of the basins between Wellington Street Bridge and Lock No. 3, four cents per cord, and for every day the wood is allowed to remain in either the canal or basin, or on the wharfs or banks after the first five days, an additional charge of four cents per cord. O. C. August 7, 1860. Con. O. C. Oct. 26, 1889, sec. 94.

(*b.*) The clause next preceding shall not only apply to the rates of toll to be collected on firewood on wharfs at Lachine and the Lachine Canal and basin, but are also extended and made applicable to the banks and grounds at Côte St. Paul and at Lachine. O. C. Jan. 27, 1862. Con. O. C. 1889, sec. 94.

CANAL BASINS IN MONTREAL PART OF MONTREAL HARBOUR.

Sec. **26.** Whereas under existing regulations for the collection of canal tolls, eastern bound vessels having paid the charges one way in full through the Welland Canal are chargeable one Section Canal Toll if re-entering the Lachine Canal;

And whereas vessels loaded with grain destined for the Montreal Harbour frequently unload only part of their cargoes on board sea-going vessels in the harbour, and re-enter the Lachine Canal for the purpose of unloading the balance of their cargoes either in elevators or mills located along the canal basins;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, in so far only as regards the collection of tolls on the class of vessels above referred to, which re-enter that portion of the canal for the purpose of unloading the balance of their cargoes, but that the same shall not apply any further, as in the event of vessels returning to the harbour to take cargo, in which case the usual toll shall be charged against them on passing out of the canal a second time into the harbour. O. C. Aug. 8, 1878. Con. O. C. Oct. 26, 1889, sec. 95.

PHOSPHATES.

Sec. **27.** Whereas vessels laden with grain for delivery in Montreal Harbour frequently carry also deck loads of phosphates, and being compelled to proceed at once to the harbour for the discharge of the grain, they pay tolls through to that point, subsequently re-entering the Lachine Canal for the storage of the phosphates, and in accordance with the existing regulations, paying canal dues a second time for such re-entry;

It is ordered that the Lachine Canal basins, within the Montreal city limits, be considered as part of the Montreal Harbour, for the purpose of the unloading of phosphates carried by vessels in addition to their grain cargoes as described in this section; it being, however, provided that in the event of their returning to the harbour to take cargo, the usual tolls shall be charged against such vessels on their passing out of the canal a second time. O. C. July 12, 1881. Con. O. C. Oct. 26, 1889, sec. 96.

Extract from the Act, Canada, 1894, c. 48, amending and consolidating the Acts relating to the Harbour Commissioners of Montreal.

HARBOUR RATES WHARFAGE DUES IN ALL BASINS OF THE LACHINE CANAL ON SEA-GOING VESSELS.

Sec. **28.** The corporation may, from time to time, levy such rates as are approved of by the Governor in Council, upon all goods landed or shipped in the harbour, moved by rail on the harbour tracks, or deposited within the harbour, except arms, ammunition and military accoutrements, and other munitions of war for the use of the Government or for the defence of the Dominion. 40 V., c. 53, s. 2, part 2. For the purposes of this section, the lower basins of the Lachine Canal shall be held to form part of the harbour of Montreal, and the corporation may levy from all vessels entering the same through the harbour for the purpose of discharging or loading there, except canal craft trading between Montreal and places above Montreal, the same rates as may be levied in the harbour and under the same regulations and penalties. In all other respects the said lower basins shall be and remain under the jurisdiction of the Minister of Railways and Canals. 18 V., c. 143, s. 18; 40 V., c. 53, s. 2, part 2.

All property delivered or received by sea-going vessels in the Lachine Canal basins at Montreal (except the old lower basin) shall be charged wharfage dues as follows:—

All goods, wares and merchandise not elsewhere specified	25 cents per ton.
Hay, straw, pig and scrap iron, pot and pearl ashes	20 "
Apples, crates and their contents, flour and meal, fish, meats, pitch, potatoes, tar, horses, neat cattle, sheep and swine	15
Ballast, clay, fire-bricks, gypsum, lime, marble, phosphate, sand, salt	10
Coal and coke, grain and seeds of all kinds	6
Special—Bricks, 10 cents per 1,000; cordwood, 5 cents per cord; lumber, 10 cents per 1,000 feet, board measure.	
Bullion specie	Free.
Coal screenings	3 "

Each entry shall pay not less than 5 cents.

All property landed on the canal wharfs for re-shipment, or transhipped in canal waters, shall pay one wharfage only.

Lumber upon which tolls have been paid for passage down the Lachine Canal, and which is reshipped from the wharfs or vessels into sea-going vessels, shall pay wharfage dues equal to one section of canal tolls, viz., $3\frac{3}{4}$ cents per 1,000 feet board measure. O.C. Jan. 26, 1883. Con. O.C. Oct. 26, 1889, secs. 98, 99, 100 and 101. O.C. May 18, 1892.

Sec. **29.**—*Standard for Estimating Weights.*

Ashes, pot or pearl	3 brls. to 1 ton.
Apples, flour, meal, potatoes	9 " 1 "
Fish, meat, pitch, tar	7 " 1 "
Horses	2 to 1 ton.
Neat cattle	3 to 1 "
Sheep	15 to 1 "
Swine	10 to 1 "

O.C. April 1, 1881. Con. O.C. Oct. 26, 1889, sec. 102.

TOLLS ON FLOATED TIMBER, ETC., ENTERING THE BASIN AT LACHINE.

Sec. **30.** The following rates of tolls shall be collected on floated timber, lumber and firewood entering the basin at Lachine and Lachine Canal:—

Kinds of Timber.	For receiving Timber, &c., to include use of Basin and Wharf for one Month.	For each succeeding month during the Season of Navigation.	For Wintering in Basin or on Wharf.
	Cents.	Cents.	Cents
Timber, square or round, of all kinds, above 12 x 12, per M cubic feet	25	20	35
Timber, round or flatted, of all kinds, under 12 x 12, per M lineal feet	20	15	30
Planks and boards to include all kinds of sawed lumber in rafts, per M feet, board measure	3	2	3
Saw logs, 12 feet long, if longer in same proportion per log	1	$\frac{1}{2}$	2
Floats, per 100	10	5	10
Traverses, per 100	10	5	10
Fence posts and rails, per M	10	5	10
Staves, barrel, per M	8	4	8
" pipe "	8	4	8
" West India, per M	8	4	8
Firewood on bank of canal between Lock No. 3 and Lock No. 5, and also on wharves in canal basin at Lachine	3	3	3

Note.

Sec. **31.** (*a.*) No allowance shall be made for fractional parts of a month or winter season.

(*b.*) The firewood shall be corded across the bank while being delivered from the boat in such manner and at such points as the superintending engineer may direct.

(*c.*) The rates on timber to take effect upon the completion of the booms in Lachine Canal. O.C June 8, 1860. Con. O.C. Oct. 26, 1889, secs. 103 and 104.

CHARGES ON VESSELS WINTERING IN LACHINE AND WELLAND CANALS.

Sec. **32.** The following rates per ton shall be charged for wintering vessels in the Lachine Canal viz. :—For each boat, barge, scow or other vessel of ten tons measurement or under, seventy cents per vessel for the entire winter, and every ten tons above the first ten, an additional rate of eight cents O.C. Aug. 22, 1879. Con. O.C. Oct. 26, 1889, sec. 97.

Sec. **32** (*a.*) The above rates shall also apply to the Welland Canal. (O.C. June 8th. 1901.

CHARGES FOR WINTERING VESSELS IN RIDEAU CANAL.

Sec. **33.** The winterage dues for vessels wintering in the canal basin, at Ottawa, or other points along the line of the Rideau Canal, shall be as follows :—

In canal basin, Ottawa, steamers per season	$ 8 00
" " barges "	4 00
Inside locks " steamers "	50 00
other stations " "	15 00

If the Minister of Railways and Canals deems it advisable, he is authorized to take security from parties wintering their vessels in locks against damage to Government property by fire. O.C. March 19, 1887. Con. O.C. Oct. 26, 1889, sec. 105.

CHARGES FOR WINTERING VESSELS IN THE OTTAWA RIVER CANALS AND LOCKS.

Sec. **34.** The charge for vessels wintering on the Ottawa River canals and locks, and the same is hereby prescribed accordingly, namely :

In Carillon Canal, steamers per season	$ 8 00
" barges "	4 00
Grenville Canal, steamers "	8 00
" barges "	4 00
Inside Locks, Ste. Anne, Carillon and Grenville Canals, steamers per season	25 00
" Culbute Canal, per season	15 00

Such security against damage by fire to be taken by way of bond as, in the opinion of the Minister of Railways and Canals, may seem desirable. O.C. Oct. 14, 1892.

Sec. **35.** No charges to be made for vessels wintering outside the locks of any government canal. O.C. Dec. 12, 1889.

CHARGES FOR REPAIRING VESSELS ON THE BANKS OF CANALS.

Sec. **36.** (*a.*) Persons using the banks of the Lachine Canal as a site for the repair of their vessels shall be subject to a charge of four dollars, payable in advance, for each vessel; the period during which such site may be occupied under any one payment being limited to six months, and permission for repairing being first obtained from the proper officer, in conformity with the existing canal regulations.

(*b.*) In the event of failure to remove vessels so occupying the banks at the expiration of the period named, no fresh permits having been obtained, such vessels may be sold under the 16th section of the canal regulations. O.C. March 5, 1880. Con. O.C. Oct. 26, 1889, sec. 106.

Sec. **37.** Rules with respect to the repairing of vessels on the banks of the Lachine Canal, the Beauharnois and the Chambly :—

(*a.*) Repairs shall only be executed at such points as may be indicated and approved by the superintending engineer.

(*b.*) For each vessel hauled up or beached for repairs, a charge of one dollar, over and above all other charges, shall be made, carrying the privilege of remaining one month, a further sum of one dollar being charged for each additional month, or fraction of a month, the vessel may remain.

(*c.*) In cases, however, where a vesssel hauled up for repairs upon the canal bank remains there throughout the winter, a charge of four dollars only shall be made (in addition to the ordinary winterage dues), the period covered being from the 1st of November to the 1st of June, inclusive.

(*d.*) Any vessel remaining on the canal bank after having wintered thereon shall be charged at the rate of one dollar a month or fraction of a month of her subsequent stay.

(*e.*) Any vessel remaining more than one year on the bank of the canal shall for such time as she may remain in excess of that period pay at the rate of two dollars a month or fraction of a month throughout the whole year.

(*f.*) All charges shall be payable at the collector's office in advance on the first day of each month.

(*g.*) These rules shall be understood as applying to all cases where the canal bank is used in any manner for the repairs of vessels, whether such vessels are actually hauled up or not. O. C. August 6, 1881. Con. O. C. Oct. 26, 1889, sec. 107.

DRY-DOCK CHARGES.

Trent Valley Canal.

Sec. 38. The following tolls and dues shall be charged for the use of the dry dock at Bobcaygeon, and of any of the locks on the Trent Valley Canal, during the winter or other shorter period:—

For Vessels	Wintering.	Per day.	Per week.
Over 15 tons	$30 00	$4 00	$12 00
15 tons and under	20 00	3 00	10 00

(O. C. Oct. 31, 1890.)

Rideau Canal.

Sec. 39. The following tariff of tolls and regulations shall be, and the same are hereby established for the use of the dry dock on the Rideau Canal at Ottawa:—

(1) Steamers entering dock	$ 8 00
Each day or portion of a day after day of entrance	2 50
(2) Barges entering dock	5 00
Each day or portion of a day after day of entrance	2 50
(3) Steam yachts or launches	5 00
Each day or portion of a day after day of entrance	2 50
(4) Boats wintering in the dry dock from the close to the opening of navigation	50 00
For every day such boat remains in the dock after the opening of navigation	8 00

(5) No vessel of any class shall be in the dock over six days after notice is given in writing by the lockmaster that the dock is required for another vessel unless a satisfactory agreement between all parties interested is arrived at.

(6) All entrances and discharge of vessels are covered by entrance fee.

(7) All drying off of vessels of all classes in the locks at Ottawa or Hartwell's during the season of navigation is prohibited unless for special reasons.

The owners of vessels of all classes to render the required assistance to open and close the gate under the supervision of the superintending engineer.

Vessel owners to supply all blocks, &c., to shove their boats up to make the necessary repairs and all refuse to be properly cleared out to the entire satisfaction of the lockmaster before leaving the dock.

(O. C. Dec. 28, 1893.)

Sec. 40. The use of horses for towage purposes between the lower entrance of the Cornwall Canal and lock No. 20, be prohibited during the works of enlargement of that portion of the Cornwall Canal.

(O.C. Aug. 20, 1890.)

Sec. 41. As the prohibition of the use of horses for towing purposes, between the lower entrance of the Cornwall Canal and Lock No. 20 during the progress of the works of canal enlargement, has entailed the use of tugs and consequently expenses to the partles concerned, that all tugs, used solely for the purposes of towing on the section in question, be permitted to pass free of toll, up and down the canal between the lower entrance of the canal and lock No. 20, until the completion of the enlargement of the works on that section. (O. C. Sept. 27, 1890.)

SPECIAL RATES FOR 1901 ONLY.

Sec. 42. For season of 1901 the Canal Tolls for the passage of the following food products:—wheat, Indian corn, peas, barley, rye, oats, flax seed and buckwheat, for through passage eastward through the Welland Canal, be ten cents per ton, and for through passage eastward through the St. Lawrence Canals only, ten cents per ton; payment of the said toll of ten cents per ton through the Welland Canal to entitle these products to free passage through the St. Lawrence Canals, or any portion thereof. (O. C. May 3, 1901.) Also special rates, are granted to grain, &c., carried on the O. A. & P. S. and Canada Atlantic Railway systems, from Depot Harbour to Coteau Landing and thence by Canal to Montreal, as follows, viz.:—Wheat, Indian corn, pease, barley, rye, oats, flaxseed and buckwheat, 2½ cents per ton, and all rolling and package freight, 5 cents per ton. (O. C. May 3, 1901.)

Sec. 43. *(a.)* That for the current season of navigation of 1900, there shall be allowed in the case of steamships specially chartered for the conveyance of excursion parties, going and coming the same day, a reduction of one-half of the usual passenger tolls for passage through the Government canals, it being distinctly understood that no freight is to be carried by the said steamers on such excursions. (O. C. May 27, 1901.)

Sec. 43. *(b.)* Whereas the Canal Tolls payable for passage through the Welland and St. Lawrence Canals of barrel staves and headings, are 40 cents per 1,000 in the case of ordinary materials, such as those for sugar and flour barrels; while in the case of staves and headings for salt barrels the charge is 8 cents per 1,000 only.

And whereas application is made to have this distinction removed on the ground that sugar and flour cooperage is of the same weight as salt cooperage.

His Excellency in virtue of the provisions of chapter 38 of the Revised Statutes of Canada, intituled "An Act respecting the Department of Railways and Canals," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that Class 5 of the existing Tariff of tolls for passage through the Canals of the Dominion, established by the Order in Council of the 25th March, 1895, shall be and the same is hereby amended to the effect, and to that effect only, of removing the distinction between ordinary and salt barrel staves and headings, and making the tolls payable for these articles the same, namely, those at present charged on salt barrel staves and headings, on all the Canals of the Dominion. (O. C. May 28 1897.)

SPECIAL RATES ON SAND AND STONE.

Sec. **43.** *(c.)* On the recommendation of the Acting Minister of Railways and Canals, the rate of tolls on sand and stone used in the construction of the bridge being built at Cornwall by the Ottawa and New York Railway was reduced from 15 and 20 cents to 7½ and 10 cents respectively. (O. C. August 27, 1898.)

PART VI

STEAM AND ELECTRIC RAILWAY STATISTICS

STEAM RAILWAY STATISTICS

OF THE

DOMINION OF CANADA

FOR THE YEAR ENDED JUNE 30, 1902

Compiled by Mr Thomas Ridout, C.E., from sworn Returns furnished by the several Railway Companies

COLLINGWOOD SCHREIBER,
Deputy Minister and Chief Engineer of Railways and Canals.

TABLE showing the growth of the Railways from year to year, since the opening of the first line in 1836.

Year.	Miles in Operation.	Year.	Miles in Operation.
1835	0	1869	2,524
1836	16	1870	2,617
1837	16	1871	2,695
1838	16	1872	2,899
1839	16	1873	3,613
1840	16	1874	3,832
1841	16	1875	4,331
1842	16	1876	4,804
1843	16	1877	5,218
1844	16	1878	5,782
1845	16	1879	6,126
1846	16	1880	6,858
1847	54	1881	7,194
1848	54	1882	7,331
1849	54	1883	8,697
1850	66	1884	9,577
1851	159	1885	10,273
1852	205	1886	10,773
1853	506	1887	11,793
1854	764	1888	12,184
1855	877	1889	12,585
1856	1,414	1890	13,151
1857	1,444	1891	13,838
1858	1,863	1892	14,564
1859	1,994	1893	15,005
1860	2,065	1894	15,627
1861	2,146	1895	15,977
1862	2,189	1896	16,270
1863	2,189	1897	16,550
1864	2,189	1898	16,870
1865	2,210	1899	17,250
1866	2,278	1900	17,657
1867	2,278	1901	18,140
1868	2,278	1902	18,714

THE SUMMARY of Tables of Steam Railways for the Years ended June 30, 1901, and June 30, 1902.

	Comparative Statement.	
	June 30, 1901.	June 30, 1902.
	$	$
Miles of railway completed (track laid)	18,294	18,868
" sidings	2,710	2,829
" iron rails in main line	110	107
" steel "	18,184	18,761
" " " (double track)	634	647
Capital paid (including the four following items)	1,042,785,539	1,098,852,206
Government (Dominion and Provincial) bonuses paid	177,640,765	185,182,371
" " " loans paid	20,613,489	20,613,214
" (Provincial only) subscription to shares paid	300,000	300,000
Municipal aid paid	16,310,253	16,465,604
Miles in operation	18,140	18,714
Gross earnings	72,898,749	83,666,503
Working expenses	50,368,726	57,343,592
Net earnings	22,530,023	26,322,911
Passengers carried	18,385,722	20,679,974
Freight carried (tons)	36,999,371	42,376,527
Train mileage	53,349,394	55,729,856
Passengers killed	16	19
Number of elevators	253	275
" guarded level crossings—public roads	193	205
" unguarded " "	12,422	12,740
" overhead bridges	427	452
" public roads under crossings	280	175
" level crossings of other railways	233	244
" junctions with other railways	347	365
" " branch lines	230	224
" engines owned	2,316	2,344
" " hired	117	100
" sleeping and parlour cars owned	243	268
" " " hired	15	13
" first-class cars owned	1,087	1,117
" " hired	72	49
" second-class and immigrant cars owned	636	562
" " " hired	13	11
" baggage, mail and express cars owned	729	657
" " " hired	86	24
" refrigerator cars owned	728	786
" " hired	273	271
" cattle and box freight cars owned	42,166	45,291
" " " hired	3,738	3,499
" platform cars owned	15,773	15,298
" " hired	575	536
" coal and dump cars owned	6,557	7,500
" " hired	218	236
" conductors' vans owned	1,019	1,118
" " hired	21	24
" tool cars owned	948*	1,009*
" " hired	7	5
" snow ploughs owned	301	308
" " hired	3	5
" flangers owned	320	302
" " hired	3	2
Included in the above there are the following—		
" cars with air brakes owned	48,072	54,201
" " hired	4,342	3,910
" automatic couplers owned	56,423	62,456
" " hired	4,711	4,426

* Including water tank cars, steam shovels, pile drivers, store cars, gravel cars, boarding cars, &c.

Nominal Capital paid up to June 30, 1902.

——	Miles constructed.	Amount.	Per Mile.	Remarks.
		$ cts.	$ cts.	
Ordinary share capital	18,868	328,135,066 00	17,391 08	
Preference "	18,868	132,266,796 60	7,010 11	
Bonded debt	18,868	404,806,846 54	21,454 68	
Aid from Dominion Government	18,868	172,950,264 83	9,166 33	
" Ontario "	7,139	8,417,577 69	1,179 09	
" Quebec "	3,445	16,445,242 16	4,773 65	
" New Brunswick Government	1,444	4,542,939 71	3,146 08	Equal to an average of $1,756.69 per mile on the total mileage.
" Nova Scotia Government	1,051	1,861,108 53	1,770 79	
" Prince Edward Island Government	209	.....	.....	
" Manitoba Government	2,128	1,840,952 75	865 11	
" British Columbia Government	1,372	37,500 00	27 33	
" North-west Territories Government	2,080	.....	.....	
" Municipalities in Ontario	7,139	12,189,664 37	1,707 47	
" " Quebec	3,445	3,118,519 20	905 23	
" " New Brunswick	1,444	336,500 00	233 03	Equal to an average of $872.67 per mile on the total mileage.
" " Nova Scotia	1,051	270,559 17	257 43	
" " Prince Edward Island	209	.....	.....	
" " Manitoba	2,128	490,600 00	230 54	
" " British Columbia	1,372	37,500 00	27 33	
" " North-west Territories	2,080	22,261 29	10 70	
Capital from other sources	18,868	11,082,307 97	587 36	
Total capital paid	18,868	1,098,852,206 81	58,238 93	

Government and Municipal Loans, Bonuses, &c., promised to Railways completed and under construction up to June 30, 1902.

——	$ cts.
Dominion Government	178,022,186 35
Ontario "	9,756,777 69
Quebec "	17,684,805 65
New Brunswick Government	4,544,439 71
Nova Scotia "	2,664,316 53
Manitoba "	1,841,952 75
British Columbia "	37,500 00
Municipalities in Ontario	12,307,664 37
" Quebec	4,875,074 00
" New Brunswick	361,500 00
" Nova Scotia	485,559 17
" Manitoba	595,600 00
" British Columbia	37,500 00
North-west Territories	25,000 00
	233,239,876 22

2-3 EDWARD VII., A. 1903

LAND GRANTS made by Governments to Railways,

No.	Act authorizing Subsidy.	Name of Railway Company.	Government.
1	48 49 Vic., c. 60; 50–51 Vic., c. 22; 52 Vic., c. 2.	Alberta Railway and Coal Co.—Main line, Dunmore to Lethbridge	Dominion.
2	52 Vic., c. 4; 52 Vic., c. 3	Alberta Railway and Coal Co, from Lethbridge to International Boundary	"
3	53 Vic., c. 4.	Calgary and Edmonton Railway	"
4	44 Vic., c. 1.	Canadian Pacific Railway—Main line	"
5	53 Vic., c. 4.	C. P. R.—Deloraine and Napinka Branch	"
6	53 Vic., c. 4.	C. P. R.—Glenboro' and Souris Branch	"
7	53 Vic., c. 4; 54 Vic., c. 10	C. P. R.—Kemnay and Estevan Branch	"
8	57–58 Vic., c. 6.	C. P. R.—Pipestone Branch	"
9	62-63 Vic., c. 57.	‡Canadian Northern Railway	"
10	49 Vic., c. 11.	Great North-west Central Railway	"
11	48-49 Vic., c. 60.	Manitoba and North-western Railway—Main line	"
12	49 Vic., c. 11.	" " Branch from Binscarth	"
13	57–58 Vic., c. 6.	Saskatchewan and Western Railway	"
14	53 Vic., c. 4.	Manitoba and South-eastern Railway	"
15	54–55 Vic., c. 10; 48–49 Vic., c. 10	Manitoba and South-western Colonization Railway	"
16	48–49 Vic., c. 60; 50–51 Vic., c. 23	Qu'Appelle, Long Lake and Saskatchewan Railway	"
17	52 Vic., c. 4; 54 Vic., c. 9.	Red Deer Valley Railway	"
		James Bay Railway	Ontario.
18	63 Vic., c. 30.	Algoma Central and Hudson Bay Railway	"
19		Yarmouth and Annapolis—in Dominion Atlantic Ry.	Nova Scotia
20		Columbia and Kootenay Railway	British Columbia
21		Columbia and Western Railway	"
22		Esquimalt and Nanaimo Railway	"
23		Kaslo and Slocan Railway	"
24		Nelson and Fort Sheppard	"
25	57 Vic., c. 39.	British Columbia Southern	"

* Again, after efforts to obtain a statement of the amounts realized from the sale of these lands, the to the Dominion Government at $1.50 per acre. ‡ By 62-63 Vic., caps 57, 75 and 80, the Lake Manitoba the Ontario and Rainy River Ry., were amalgamated with the Canadian Northern Ry., all the rights of

completed and under construction, up to June 30, 1902.

Mileage Subsidized.	Acres granted per Mile.	Total Acres granted.	Acres sold by Railway Companies.	Amount Realized.	
				$ cts.	
109·50	6,400	700,800	1,763,237·29	2,332,869 54	Sold 648,869 acres more than the Dominion Government grant.
64·62	6,400	413,568			
340·00	6,400	2,176,000	*1,481,046	*	
.....	.....	25,000,000	†6,793,014	10,189,521 00	
18·01	6,400	115,264	6,092,218	19,481,339 40	
45 24	6,400	289,536			
156·86	6,400	1,003,904			
31·30	6,400	200,320			
1,025·00	Div. A., 6,400 " B., 12,800 " C., 6,400	9,280,000	110,197	354,800 31	
50·00	6,400	320,000	No return of lands sold.		
430·00	6,400	2,918,400	*1,187,487	* 1,950,522 10	*From return of 1900, now leased to C.P.R., but lands held by former bondholders from whom no returns of sales have been received.
26·00	6,400				
15·47	6,400	99,008			
98·10	6,400	627,200	.....	.....	In Canadian Northern.
218 25	6,400	1,396,800	743,186·73 Town sites.	3,042,491 45 198,489 29	
253·96	6,400	1,625,344	128,000 998,200	121,600 00 *	
55·00	6,400	352,000			No return.
175·00	5,000	875,000	None.	Nil.	
200·00	7,400	1,480,000	None.	Nil.	
....	....	150,000	No return of lands sold.		
.....	....	190,000	22,811·40 Town sites.	51,424 80 230,049 54	Leased to Can. Pac. Ry.
.....	.....	2,500,000	No return of lands sold.		Leased to Can. Pac. Ry.
.....	.. ..	2,000,000	285,495	879,004 35	
..... .	....	212,763	Town sites. 4,965·02	1,100 00 16,424 00	
.....	.....	608,256	12,296	343,567 96	
187·79	20,000	3,755,733	200	320 00	

companies have failed to give the information, the return, therefore, in this respect, is incomplete. †Sold Railway and Canal Co., the Winnipeg Great Northern Ry., the Manitoba and South-eastern Ry., and these companies being vested in the new company.

TOTAL FATAL ACCIDENTS for Year ended June 30, 1902.

	Passengers Killed.	Employees Killed	Others Killed.	Total Killed.
Falling from cars or engines	4	21	5	30
Jumping on or off trains in motion	5	11	5	21
At work making up trains		10		10
Putting heads or arms out of window				
Coupling cars		15	1	16
Collisions and derailments	5	34	5	44
Struck by engines or cars on highway crossings	1	1	39	41
Walking or being on track	1	36	106	143
Explosions				
Striking bridges		2		2
Other causes	3	16	4	23
Total killed	19	146	165	330

SESSIONAL PAPER No. 20

TABLE showing Location of the Steam Railways of the Dominion of Canada, June 30, 1902.

Name of Railway.	Description.	Distance. Miles.	Total.
Alberta Railway and Coal Co....	From Lethbridge in District of Alberta, N.W.T., to Coutts, on International boundary, 3 ft. gauge.....	.....	64·62
	The portion from Dunmore to Lethbridge, 107 miles, was changed to 4 ft. 8½-in. gauge and sold to Can. Pac. Ry., 29th Nov., 1893.		
Albert Southern..	Harvey Branch Junction to Alma, N.B..	16·00	
	Harvey Branch Albert to Harvey Bank, N.B... ...	3·00	
			19·00
Algoma Central and Hudson Bay.	Sault Ste. Marie to Spruce Lake—Main line..... ..	48·00	
	Branch—Michipicoten to Helen Mines.....	12·00	
	" Josephine Jct. to Josephine Mine...	10·50	
	42 miles in operation.		70·50
	180·50 miles under construction.		
Baie des Chaleurs in Atlantic and Lake Superior System.....	Metapedia Station on C.P.R. to Paspebiac, 100 miles	.....	100·00
	Paspebiac to end of wharf, 2 miles under construction.		
	Paspebiac to Port Daniel, 21 miles under construction.		
Bay of Quinté Railway and Navigation Coy.....	Deseronto, on Bay of Quinté, Lake Ontario, to Deseronto Junction, Grand Trunk Railway.....	.....	4·00
Bedlington and Nelson.....	Kuskonook to Bedlington, B.C.....	.....	15·20
British Yukon.....	White Pass to White Horse Spur, B.C., and Branch to White Horse	.....	90·32
Buctouche and Moncton.....	Moncton, on Intercolonial Railway, to Buctouche, N.B.	.....	32·00
Brockville, Westport and Sault Ste. Marie.....	Brockville to Westport, Ont.....	.. ..	45·00
Bruce Mines and Algoma..	Bruce Mines to Rock Lake.	.....	16·62
Calgary and Edmonton.....	Calgary to Edmonton.....	190·97	
	" MacLeod, District of Alberta.....	104·96	
			295·93
Canada Atlantic, including Ottawa, Arnprior and Parry Sound Ry	City of Ottawa to Junction with Grand Trunk at Lacolle and U.S. boundary. Crosses the St. Lawrence at Coteau by bridge. Connects with Grand Trunk Railway at Coteau and Lacolle, and Ottawa to Depot Harbour, Lake Huron, near Parry Sound.....	. .....	400·30
Central Counties.....	From Glen Robertson, on Canada Atlantic to Hawkesbury, Ont.....	21·00	
Leased to Canada Atlantic.....	South Indian, on Canada Atlantic, to Rockland.....	16·40	
			37·40
Canadian Northern.....	Port Arthur to Winnipeg.....	438·80	
	Beaver to Erwood..	295·42	
	Branch—Stanley Junction to Gunflint Lake.....	66·90	
	" Sifton Junction to Winnipegosis.....	21·20	
	" Gilbert Plains Junction to Grandview	26·60	
	" Carman Junction to end of track.	43·70	
			892·62
Canada Coals and Railway Co., formerly Joggins	Maccan Station, I.C.R., to Joggins Coal Mine.....	.....	12·00
Canada Southern.....	Main Line—Windsor, Ont., to Suspension Bridge....	226·18	
	Amherstburg Branch—Essex Centre to Amherstburg.	16·83	
	St. Clair Branch—St. Clair Junction to Courtright...	62·63	
	Fort Erie Branch—Fort Erie to Welland Junction...	17·50	
	Erie and Niagara Branch—Old Fort Erie to Niagara.	30·60	
	Oil Springs Branch—Oil Springs to Oil City..... .	5·50	
Leased	Sarnia, Chatham and Erie—Oil City to Petrolea.	7·00	
"	Leamington and St. Clair—Comber to Leamington..	15·95	
			382.19

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Total.
Canada Eastern	Late Northern and Western of New Brunswick.		
	Gibson, opposite City of Fredericton to Chatham Junction, I.C.R.	107·00	
	Chatham Junction to Chatham and Logieville via Nelson	20·00	
	Blackville to Indiantown	9·00	
			136·00
Canadian Pacific: Owned	Main Line Quebec to St. Martin's Junction	159·80	
	" Montreal to Ottawa	120·30	
	" Ottawa to Bonfield	223·60	
	" Bonfield to Vancouver	2,561·10	
			3,064·80
	Branches—Dunmore to Crows Nest	213·60	
	" Piles Junction to Grand Piles	26·90	
	" Berthier Junction to Berthier	2·00	
	" Joliette Junction to St. Félix	16·80	
	" Ste. Thérèse Junction to St. Jérome	13·60	
	" " to St. Eustache	6·00	
Montreal and Western	" St. Jérome to Labelle	66·90	
	" St. Lin Junction to St. Lin	15·00	
	" Buckingham Stn. to Buckingham Village.	4·20	
Brockville and Ottawa Railway	" Carleton Junction to Brockville	45·00	
	" Sudbury to Sault Ste. Marie	178·90	
	" Sudbury to Copper Mines	5·60	
	" Dyment to Ottawine	7·00	
	" Molson to Lac du Bonnet	22·00	
	" McGregor to Wellwood	26·10	
	" Winnipeg Junction to Emerson	64·50	
	" " to Manitou	101·10	
	" Rosenfeldt to Gretna	13·70	
	" Winnipeg to West Selkirk	24·00	
	" Air Line Junction to Teulon	37·30	
	Souris Branch. Kenmay to Estevan	156·20	
	Souris Branch. Glenboro' to Souris	45·70	
	Souris Branch. Deloraine to Napinka	18·60	
	Branches—Monteith Junction to Arcola	94·80	
	" North Portal to Pasqua	160·30	
	" New Westminster Junction to New Westminster	8·20	
Lake Témiscamingue Colonization	" Mattawa to Kippewa	48·00	
	" Mission Junction to Mission	10·00	
	" Revelstoke to Arrow Head	27 70	
	" Vancouver to Coal Harbour	1·20	
	" Three Forks to Sandon	4·20	
	" Wood Bay to Snowflake	16·30	
	" North Star Junction to Kimberly	19·10	
	" Deloraine to Waskada	17·20	
			1,517·7
	Total mileage owned		4,582·50
Leased Lines	Atlantic and North-west (in Canada)—		
	South end Lachine Bridge to Maine boundary, Que. 181·80		
	Renfrew Jct. to Eganville, Ont. 19·20		
	St. Lawrence and Ottawa—	291·00	
	Ottawa to Prescott, Ont 51·80		
	Chaudière Junction to Sussex St., Ottawa. 6·60		
	Ontario and Quebec—	58·40	
	Montreal (Windsor St.,) to Daley's cut 6·20		
	Mile End to Daley's cut 6·40		
	Montreal Jct. to South End Lachine Bridge 3·60		
	" Toronto Junction 334·00		
	St. Luc Junction to Western Junction 1·70		
	Toronto Junction to Strachan Avenue 3·20		
	Leaside Junction to Union St., Toronto 5·30		
	London to Windsor 112·60		
		473·00	

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.		Distance. Miles.	Total.
Canadian Pacific—*Continued.*				
Leased lines	Credit Valley—			
	Toronto Junction to St. Thomas	116·80		
	Streetsville Junction to Melville Jct	31·60		
	Cataract to Elora	27·30		
			175·70	
	West Ontario Pacific—Woodstock to London		26·60	
	Toronto, Grey and Bruce—			
	Toronto Junction to Owen Sound	116·80		
	Orangeville Junction to Teeswater	69·80		
	Glenannan to Wingham	4·50		
			191·10	
	Guelph Junction—			
	Guelph Junction on Credit Valley Ry. to Guelph		15·00	
	Montreal and Lake Maskinongé—			
	St. Félix to St. Gabriel de Brandon		11·00	
	Montreal and Ottawa—			
	Vaudreuil to Jct. with the Canada Atlantic	86·20		
	Rigaud to Pt. Fortune	7·00		
			93·20	
	Toronto, Hamilton and Buffalo—			
	Hamilton Junction to Hamilton		2·70	
	Cap de la Madeleine—			
	From Main Line C.P.R., at Junction with Piles branch to Cap de la Madeleine		3·00	
	New Brunswick—			
	Woodstock to Maine boundary	59·40		
	Newburg Junction to Fredericton	58·40		
	Aroostook Junction to Edmondston	57·20		
			175·00	
	St John and Maine—			
	Vanceboro to McAdam Junction	6·30		
	McAdam Junction to Fairville	81·80		
	Fairville to Carleton	4·00		
			92·10	
	St. John Bridge and Railway Extension—			
	Fairville to St. John		2·00	
	Fredericton—			
	Fredericton Junction to Fredericton		22·10	
	New Brunswick and Canada—			
	McAdam Junction to St. Stephen	33·90		
	Watt Junction to St. Andrews	27·50		
	McAdam Junction to Woodstock	50·80		
	Debec Junction to Maine boundary	5·00		
			117·20	
	St. Stephen and Milltown Ry.—			
	St. Stephen to Milltown		4·60	
	Tobique Valley—			
	Perth Centre to Plaster Rock		28·00	
	Manitoba and Northwestern—			
	Portage la Prairie to Yorkton	222·90		
	Binscarth to Russell	11·30		
	Saskatchewan and Western—Minnedosa to Rapid City	18·40		
			252·40	
	Manitoba South-western Colonization—			
	Manitou to Deloraine	100·40		
	Winnipeg to Glenboro'	101·90		
	Elm Creek to Carman	12·10		
			214·40	
	Great North-west Central, Chater to Miniota		71·00	
	Columbia and Kootenay—			
	Nelson to Robson	27·70		
	Slocan Junction to Slocan City	32·00		
	To Mouth of Kootenay River	0·80		
			60·50	
	British Columbia Southern—			
	Crows Nest to Kootenay Landing	182·00		
	Nelson to Proctor	20·40		
			202·40	

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Total.
Canadian Pacific—*Continued.*			
Leased lines	Shuswap and Okanagan—		
	From Junction with C. P. R. at Sicamous to Lake Okanagan	50·80	
	Nakusp and Slocan—		
	Nakusp on Arrow Lake to Three Forks of Carpenter's Creek, B.C.	36·30	
	Columbia and Western—		
	Robson to Rossland 32·10		
	Trail to Smelter Junction 2·00		
	Rossland to LeRoi 1·30		
	West Robson to Midway 99·00		
	Mining Spurs 23·50		
		157·10	
	Total mileage leased		2,738·50
	" owned		4,582·50
	" in Can. Pac. system		7,321·00
Canadian Government Railways.	Intercolonial—		
	Halifax to Point Lévis (via Harlaka) 674·87		
	Dartmouth to Windsor Junction 12·12		
	Truro to Sydney 214·17		
	Mulgrave to Point Tupper Ferry ·90		
	North Sydney Junction to North Sydney 4·43		
	New Glasgow to Pictou Landing 7·57		
	Stellarton to Oxford Junction 79·63		
	Brown's Point to Pictou 1·70		
	Pugwash Junction to Pugwash Station 4·70		
	Painsec Junction to Pt. du Chêne 11·38		
	Moncton to St. John 89·22		
	Derby Junction to Indiantown 13·51		
	Dalhousie Branch 5·97		
	St. Charles Junction to Chaudière Junction (via St. Henri) 16·38		
	Hadlow to Chaudière Curve 5·66		
	Moncton and Chaudière Branches 1·55		
	Freight Branches 27·57		
		1,171·33	
	Windsor Branch (32 miles) of I. C. Ry. is operated by Dominion Atlantic Ry.		
	Drummond County—		
	Chaudière to Ste. Rosalie Jct. with Grand Trunk	115·93	
	St. Leonard to Nicolet and Balls Wharf on St. Lawrence	14·68	
			1,301·94
	Prince Edward Island—		
	Main Line—Alberton to Charlottetown 104·30		
	Royalty Junction to Georgetown 41·00		
	Branch—Mount Stewart to Souris 38·40		
	" Alberton to Tignish 13·30		
	" Emerald to Cape Traverse 12·00		
			209·00
			1,510·94
Cape Breton Railway	Point Tupper to St. Peters—Under construction.	30·00	
Caraquet	From Gloucester Junction, Intercolonial Railway, 5 miles south of Bathurst Station, easterly along the south shore of Baie des Chaleurs to Shippigan Harbour, N.B.		68·00
Carillon and Grenville	Carillon to Grenville, Que., connecting at both termini with Ottawa River Navigation Company's steamers (Gauge, 5 ft. 6 in.)		13·00
Central (Nova Scotia), formerly Nova Scotia Central	From Middleton on the Windsor and Annapolis Railway to town of Lunenburg, on the Atlantic coast, N.S.		74·00

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Total.
Central Ontario	From Picton, in Prince Edward County, to Bancroft	117·00	
	Branch, Ormsby Jct. to Coe-Hill Iron Mines, Wallaston, County of Hastings; connects with Grand Trunk at Trenton, Midland Railway, 2 miles west of Stirling, and with Ontario and Quebec, in Township of Rawdon	8·00	125·00
Central Railway of New Brunswick	From Norton Station, on the Intercolonial Railway, to Chipman	44·66	
	Branch to Elkin Mines	1·00	
			45·66
Coast Line, Nova Scotia, now Halifax and Yarmouth	Yarmouth towards Halifax, 240 miles, of which 30·80 miles are in operation, 50·10 completed and 61 miles under construction		50·10
Cobourg, Northumberland and Pacific	From Cobourg, Ont., to Junction with Central Ontario Railway, 49 miles under construction		
Cumberland Railway and Coal Company (formerly Spring Hill and Parrsboro')	Spring Hill Junction, Intercolonial Railway, to Spring Hill Coal Mines, N.S., and Parrsboro', on the Bay of Fundy		32·00
	Spring Hill and Oxford Branch, 14 miles from Spring Hill Mines to Oxford Village on the Oxford and New Glasgow Branch, I.C.R., not in operation.		
Crows Nest Southern	International Boundary to Morrissey, B.C.	44·26	
	Morrissey to Coal Mines	4·21	
	Under construction	48·47	
Dominion Atlantic, comprising Windsor and Annapolis, Yarmouth and Annapolis and Cornwallis Valley and lease of Windsor Branch of Intercolonial	Windsor to Annapolis, N.S.	84·00	
	Annapolis to Yarmouth	87·00	
	Branches—		
	Wilmot to Forbrook	3·50	
	From Kentville to Kingsport, on Basin of Minas (formerly Cornwallis Valley Railway)	14·00	
	Windsor Branch of I.C.R.—Windsor to Windsor Junction, Intercolonial Railway, 14 miles from Halifax, leased	32·00	
			220·50
Elgin and Havelock	From Elgin, County of Albert, N.B., to Petitcodiac Junction with Intercolonial Railway; thence to Havelock in County of King's, N.B	27·00	
	Havelock to Keith's Mills	1·00	
			28·00
Esquimalt and Nanaimo	Victoria to Wellington, Island of Vancouver		78·00
Fredericton and St. Mary's Railway Bridge	Over the St. John River, connecting the Fredericton Railway, at Fredericton, with the New Brunswick Railway, and Canada Eastern Ry., at St. Mary's		1·33
Grand Trunk (owned)—			
Main Line	Point Edward to Point Levis and Boundary Line, Vermont	544·40	
	York to Sarnia Tunnel	175·70	
	Suspension Bridge, Niagara Falls to Windsor	229·81	
			949·91
Branches, Eastern Division	Arthabasca Branch	35·34	
	St. Lambert to Ft. Covington (Boundary)	67·20	
	Brossaus to Rouse's Point (Boundary)	36·79	
	St. Isidore to Province Line	24·15	
	St. Martine to Valleyfield	19·12	
	Bonaventure to Dorval	10·12	
	Jacques Cartier Union Ry	6·54	
	St. Paul Branch	1·08	

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Total.
Grand Trunk (owned)—*Con.*			
Eastern Division—*Concluded*...	St. Henri curve	0·31	
	Wharf Branch, Montreal	0·85	
	Wharf Branch, Lachine	0·68	
	Kingston Branch	2·25	
			204·43
Northern Division	Belleville Harbour to Midland	163·96	
	Madoc Junction to Eldorado	21·68	
	Port Hope to Peterboro'	30·57	
	Peterboro' to Lakefield	9·56	
	Millbrook Junction to Omemee Junction	15·12	
	Chemong Branch	3·00	
	Blackwater to Coboconk	36·19	
	Medonte Tramway	0·75	
	Scarboro Junction to Haliburton	114·82	
	Whitby Harbour to Manilla Junction	33·71	
	Stouffville to Jackson's Point	26·91	
	North Parkdale to Nipissing Junction	218·31	
	Muskoka Wharf Branch	1·00	
	Burlington Junction to Allandale	84·00	
	Allandale to Meaford	53·88	
	Colwell to Penetang	33·30	
	Beeton Junction to Lake Junction	40·62	
	Hillsdale Tramway	8·28	
			895·66
Middle Division	Blackwell to Point Edward	5·21	
	Galt to Elmira	25·02	
	St. Mary's to London	21·13	
	Toronto Belt Line	12·79	
	Bathurst St., Toronto to Hamilton	37·95	
	Port Dover to Hamilton	40·25	
	Burlington Beach Line	11·33	
	Stoney Creek and Gages connections	2·56	
	Komoka to Sarnia	50·85	
	Sarnia to Point Edward	2·67	
	Petrolia Branch	4·71	
	Fort Erie to Glencoe	145·55	
	Glencoe to Kingscourt	21·01	
	Port Colborne to Port Dalhousie	25·14	
	Clifton to Port Robinson	9·75	
	Welland Junction	0·20	
	Goderich to Goderich Harbour	1·00	
	Harrisburg to Tilsonburg Junction	42·54	
	Port Dover to Tavistock	55·68	
	Simcoe to Port Rowan	17·00	
	Harrisburg to Southampton	128·44	
	Palmerston to Durham	26·73	
	Harriston to Wiarton	63·97	
	Stratford to Palmerston	36·60	
	Listowell to Kincardine	57·66	
	Hyde Park to Wingham	68·88	
	Cobourg to Harwood (not in operation)	15·00	
			929·62
			2,976·62
Leased and partly owned	Buffalo and Lake Huron Ry	.....	
	Fort Erie to Goderich	162·00	
	Owen Sound Branch	.....	
	Park Head to Owen Sound	12·42	
			174 42
Lease or rented	Wharf Branch, Montreal	.....	3 44
			3,157·48

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Distance. Total.
St. Clair Tunnel and approaches.	Under the St. Clair River, between Sarnia and Port Huron—connecting the Grand Trunk Railway with railroads in State of Michigan	.....	2·23
	(Length of tunnel between portals 6,000 ft., cylindrical in section with clear inside diameter of 19 ft. 10 inches).		
Great Eastern in Atlantic and Lake Superior system	From junction with South eastern Railway at Yamaska to River St. Francis	6·00	
	From Nicolet to Junction with Grand Trunk Railway at St. Grégoire	7·00	
	Yamaska to Sorel	10·00	
	Pierreville to Nicolet, 15 miles under construction.		
	St. Grégoire to Chaudière Junction, 67 miles under construction.		
Great Northern, including Lower Laurentian	From Riv. à Pierre Jct. with Quebec and Lake St. John Ry. to Hawkesbury	169·38	
	From Shawenegan Junction to Shawenegan Falls	3·98	
	From St. Jérôme Junction to St. Jérôme	1·74	
			175·10
Gulf Shore	Junction with Caraquet Railway at Pokemouche to Tracadie operated by Caraquet Ry.	.....	16·78
Hampton and St. Martin, formerly St. Martin and Upham	From Hampton on Intercolonial Ry. to St. Martin, County of St. John, N.B., on Bay of Fundy	.....	29·00
Hereford	From International Boundary to Dudswell, County Wolfe, connects with Canadian Pacific Railway at Cookshire, Maine Central at International boundary, and with Quebec Central at Dudswell	48·50	
	Dudswell to Lime Quarries (Dominion Lime Company)	4·80	
			53·30
Interprovincial Railway Bridge and approaches	Across the Ottawa River at City of Ottawa	.....	1·40
Irondale, Bancroft and Ottawa	From Junction with Grand Trunk Railway, near Kinmount Station, to Bancroft Station	.....	48 00
Inverness and Richmond, now Inverness Ry. and Coal Co	Broad Cove Mines to Point Tupper Junction	.....	61 00
James Bay	From junction with Canada Atlantic Railway to Parry Sound, under construction, 5 miles.		
Kaslo and Slocan	From Kaslo to Sandon, B.C.	28·80	
	From Junction to Cody	3·00	
			31·80
Kent Northern	Richibucto, N.B., to Kent Jct. Intercolonial Railway	27·00	
St. Louis and Richibucto	Richibucto to St. Louis	7·00	
Kettle River Valley	Grand Forks to International boundary, 3·80 miles under construction.		
Kingston and Pembroke	Main Line Kingston to Renfrew	103·10	
	Glendower Branch—Bedford to Zanesville Mine	4·00	
	Robertsville Branch—To Robertsville Mines	1·00	
	Branches—To Doran's Mills, Charcoal Works McLaren's Mills, Bethlehem Iron Mines, Lavant Mills, Clyde Forks Mills, Wilson's Mine, Carswell's Mills, William's Mine, Cameron Bay	4·75	
	(Connects with Grand Trunk at Kingston, Canadian Pacific at Sharbot Lake and at Renfrew.)		
			112·85
Kingston, Napanee and Western.	Amalgamated with Bay of Quinté Railway:		
	Napanee to Tamworth	28·50	
	Yarker to Harrowsmith	7·00	
	Tamworth to Tweed	20·95	
	Harrowsmith to Sydenham	4·37	
			60·82

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Distance. Total.
Lenora Mount Sicker	Lenora Mines to Croston, B.C.		11·50
Lotbinière and Mégantic	Lyster Station, Grand Trunk, to St. Jean des Chaillons		30·34
L'Assomption	L'Epiphanie Station, C.P.R., to L'Assomption		3·33
Lake Erie and Detroit River	Walkerville, Ont., to St. Thomas	126·85	
Erie and Huron	Rondeau to Sarnia	71·50	
			198·35
London and Port Stanley	London to Port Stanley on Lake Erie		24·00
Lindsay, Bobcaygeon and Pontypool	From Bobcaygeon to 10 miles west of Pontypool on Canadian Pacific Railway, 3·78 miles under construction.		
Liverpool and Milton	From Liverpool, N.S., to Milton		5·00
Manitoulin and North Shore	Sudbury to Gertrude Mines	13·50	
	Stanley Jct. to Spanish River	1.50	
	Elsie Jct. to Mines	1·00	
			16·00
Midland of Nova Scotia (formerly Stewiacke Valley)	From Windsor to Truro, N.S.		57·50
Montfort and Gatineau Colonization	From Junction with Montreal and Western near St. Sauveur to Arundel		33·00
Massawippi Valley	From Lennoxville to Vermont boundary, there connecting with Connecticut and Passumpsic Rivers Railway; also connects with Grand Trunk and C.P.R., at Lennoxville	31·95	
	Branch—Stanstead Junction to Stanstead	3·51	
			35·46
Montreal and Vermont Junction.	From Junction with Stanstead, Shefford and Chambly Railway, 2½ miles east of St. Johns, P.Q., to Junction with Vermont and Canada Railway, at Vermont boundary; also connects at Stanbridge with Lake Champlain and St. Lawrence Junction Railway		23·60
Montreal, Portland and Boston, now Montreal and Province Line	Junction with Grand Trunk at St. Lambert to Farnham	32·00	
	Marieville to St. Césaire	8·60	
			40·60
Montreal and Atlantic (formerly South-eastern)	Main Line—West Farnham to Richford on International boundary	33·80	
	Northern Division—Sutton Junction to Sorel	95·50	
	Between Newport and Richford—Part of Line in Canada	10·30	
		139·60	
	Leased—Lake Champlain and St. Lawrence Junction—Stanbridge to St. Guillaume	60·70	
			200·30
	(Connects with Connecticut and Passumpsic, Grand Trunk and Stanstead, Shefford and Chambly Rys.).		
Nelson and Fort Sheppard	From Five Mile Point to Fort Sheppard on International boundary, B.C.		54·70
New Glasgow Iron, Coal and Railway Company, now Nova Scotia Steel Co.	From Ferrona Junction, I.C.R., to Sunny Brae,		12·50
New Brunswick and Prince Edward Island	From Sackville Station, Intercolonial Railway to Cape Tormentine		36·00
New Westminster Southern	Douglas to South Westminster		24·10

TABLE showing Location of Railways, &c.—*Continued.*

Name of Railway.	Description.	Distance. Miles.	Total.
Northern Pacific and Manitoba, operated by Canadian Northern	Winnipeg to International boundary	65·94	
	Portage Junction to Portage la Prairie	52·52	
	Morris to Brandon	145·24	
	Departure to near Hartney	50·94	
	Connection with C.P.R. at Winnipeg	1·24	
	Spurs to Industries	4·63	
			320·51
Nosbonsing & Nipissing	From Lake Nosbonsing to Lake Nipissing		5·50
Nova Scotia Southern	Under construction 117 miles—		
	Shelburne to New Germany 77·00		
	Indian Gardens to Liverpool 20·00		
	Sable River Junction to Lockport 20·00		
Ontario, Belmont and Northern—Leased to Central Ontario Ry.	From Junction with Central Ontario Ry. to Iron Mines in Township of Belmont		9·60
Orford Mountain	Eastman on C.P.R. to Lawrenceville and Kingsbury, Que.	26·50	
	To Bonualie Lake	4·50	
			31·00
Ottawa and Gatineau, now Ottawa Northern and Western	Canadian Pacific Railway Junction in Hull, Que., to Gracefield		59·10
Ottawa Valley in Atlantic and Lake Superior System	Lachute on C.P.R., to St. Andrews on Ottawa River		7·00
Ottawa and New York	From Ottawa to International Boundary near Cornwall		56·79
Pembroke Southern leased to Canada Atlantic	From Pembroke to Golden Lake		20·90
Philipsburg	Stanbridge Station of Canadian Pacific and Central Vermont Railways, to Philipsburg, Missisquoi Co.		7·50
Pontiac and Renfrew	From Wyman's Station, on Pontiac Pacific Junction Railway, to Bristol Iron Mines, County Pontiac, Que		4·25
Pontiac Pacific Junction	From Aylmer, Que., to Waltham		77·70
Portage and North-western, operated by Canadian Northern	Portage la Prairie to Beaver	20·02	
	Portage la Prairie to Delta	15·05	
			35·07
Qu'Appelle, Long Lake and Saskatchewan	From Canadian Pacific Railway at Regina, North-westerly to Long Lake and Prince Albert		253·96
Quebec Bridge and approaches to connect adjacent Railways	(Across St. Lawrence River at Quebec, under construction 10 miles.)		
Quebec and Lake St. John	Quebec to Roberval	190·00	
	Chambord Junction to Chicoutimi	51·00	
			241·00
Quebec Central	Main Line—Sherbrooke to Harlaka Junction, Intercolonial Railway, 5 miles from Lévis, Que	137·50	
	Chaudière Branch, Beauce Junction to St. Francis	15·00	
	Angus Branch—East Angus to Angus Mills	1·00	
	Tring Megantic—Tring Junction to Megantic	60·00	
	(Connects with Grand Trunk, Canadian Pacific and Boston and Maine Rys. at Sherbrooke).		213·50
Quebec, Montmorency and Charlevoix	Hedleyville, Parish of St. Roch, Quebec, to Cap Tourmente		30·00
Quebec Southern, comprising East Richelieu Valley Railway and United Counties— And South Shore Railway	Noyan Junction to St. Robert Junction	82·00	
	From St. Francis du Lac to Junction with Grand Trunk at St. Lambert	61·50	
			143·50
Red Mountain	From International boundary Line, B.C. to Rossland		9·53
Restigouche and Western	Campbellton, N.B., to St. Leonard's, 100 miles (under const'n)		10·00

TABLE showing Location of Railways, &c.—*Concluded*

Name of Railway.	Description.	Distance. Miles.	Distance. Total.
Rutland and Noyan	International Boundary to Noyan Jct.		5·00
Stanstead, Shefford and Chambly	From Junction with Montreal and Vermont Junction Railway, near St. John, Que., easterly to Waterloo		43·00
Shore Line (formerly Grand Southern)	St. John to St. Stephen, N.B		82·50
St. John Bridge and Railway Extension	From St. John to Fairville, crosses St. John River at the Falls by a cantilever steel bridge, and connects Intercolonial Railway with New Brunswick Railway, C.P.R., included in Canadian Pacific System		2·00
St. John Valley and Rivière du Loup	From Fredericton, N.B., to Woodstock, N.B., 66 miles, of which 6 miles are under construction		
Salisbury and Harvey (formerly Albert Railway)	Salisbury to Albert, N.B.		45·00
St. Lawrence and Adirondack	From Jct. with Canada Atlantic near Valleyfield to International Boundary	19·92	
	Beauharnois to Junction with Canadian Pacific at Adirondack Junction	12·90	
			32·82
Sydney and Louisburg (Dominion Coal Co)	Sydney Harbour to Louisburg Harbour	39·15	
	Branches to coal mines	9·81	
			48·96
St. Mary's River	Stirling to Spring Coulee (District of Alberta.)		30·00
Thousand Islands	Gananoque on St. Lawrence River to Gananoque Station, G.T.R.		6·33
Témiscouata	Rivière du Loup, Que., on Intercolonial, to Edmundston, N.B., on the New Brunswick Railway	81·00	
	Branch—Edmundston to Connors, on St. John River	32·00	
			113·00
Tilsonburg, Lake Erie and Pacific	Tilsonburg to Ingersoll, 15·33 miles, under construction.		
	From Port Burwell on Lake Erie to Junction with Canada Southern Railway, north of Tilsonburg		20·00
Toronto, Hamilton and Buffalo, including Brantford, Waterloo and Lake Erie	Main Line—Waterford Jct. with Canada Southern to Welland Jct. with Canada Southern—passing through the city of Hamilton	79·87	
	Chantler to Fonthill	4·00	
	Belt Line City of Hamilton	3·52	
			87·39
Vancouver and Lulu Island	Vancouver to Steveston—17·20, under construction.		
Victoria and Sidney—Leased	Victoria to Sydney, B.C.	16·26	
Victoria Terminal Railway and Ferry	Topaz Avenue to Cormorant St., Victoria	1·14	
			17·40
York and Carleton	Junction with Canada Eastern Ry. at Cross Creek Station to Stanley, N.B.		5·75

SUMMARY STATEMENT OF CAPITAL

FOR THE

FISCAL YEAR ENDED JUNE 30, 1902

NOTE A.—With regard to certain subsidies granted by Dominion Parliament.

By 60-61 Vic., cap. 4, 1897, 62-63 Vic., cap. 7, 63-64 Vic., cap. 8, 1900, and 1 Edward VII., cap. 7.—A subsidy was authorized on certain mileage of these railways specified in the said Acts of Parliament, of $3,200 per mile, and a further subsidy beyond the sum of $3,200 per mile, of fifty per cent on so much of the average cost of the said specified mileage subsidized as is in excess of $15,000 per mile, such subsidy not exceeding in the whole the sum of $6,400 per mile.

The amounts of certain of the subsidies authorized by Parliament which are given in this statement, include the determined portion of the subsidies, viz., the amounts produced by the $3,200 per mile, but the other portion, being an undetermined amount cannot be shown here.

Of the Railways shown in this statement the following is the mileage which may be entitled to the additional subsidies under these said Acts :—

Algoma Central	225 miles.
Bruce Mines and Algoma	9 "
Canadian Pacific—Extension of Pipestone Branch	50 "
" " Extension of Waskada Branch	20 "
" " Extension of Stonewall Branch	35 "
Central Railway of New Brunswick	45 "
Coast Railway of Nova Scotia now Halifax and Yarmouth	61 "
Cobourg, Northumberland and Pacific	50 "
Drummond County, now Intercolonial	42½ "
East Richelieu Valley, now in Quebec Southern	24 "
Great Northern	44 "
Gulf Shore	5½ "
Ontario and Rainy River, now in Can. Northern	80 "
Ottawa, Arnprior and Parry Sound	56 "
Ottawa and Gatineau, now Ottawa, Northern & Western	86 "
Ottawa and New York	53·87 "
Pembroke Southern	24 "
Philipsburg Railway and Quarry Co	$0\frac{66}{100}$ "
Pontiac Pacific Junction	21½ "
Restigouche and Western	20 "
St. Lawrence and Adirondack	13½ "
St. Stephen and Milltown	$1\frac{14}{100}$ "
Tilsonburg, Lake Erie and Pacific	28 "
United Counties, now in Quebec Southern	1 "
Inverness and Richmond	53 "
Montreal and Province Line	19 "
Nova Scotia Southern	97 "
York and Carleton	6 "
Atlantic and Lake Superior—Baie des Chaleurs	30 "
Central Ontario	20 "
Midland of Nova Scotia	58 "
Kingston and Pembroke	41 "

NOTE B.—Memorandum of adjustment with Statement No. 3, Part II, being Accountant of Department of Railways and Canals, Statement of Railway Subsidies to June 30, 1902.

	$ cts.	$ cts.
Total Dominion Government aid paid up. Statement I		172,950,264 83
ADD—Atlantic and North-west Railway (portion in United States)		1,501,500 00
St. Catharines and Niagara Railway (Electric Railway) in Electric Railway Statistics		38,400 00
Oshawa Railway and Navigation Company (Electric Railway) in Electric Railway Statistics		22,400 00
LESS—Intercolonial Railway, including Windsor Branch (cost)		174,512,564 83
Prince Edward Island Railway (cost)	68,310,619 55	
Canadian Pacific Railway, construction of lines built by Dominion (not including surveys) and transferred to Canadian Pacific Company	4,599,825 15	
	31,112,662 15	
Fredericton and St. Mary's Bridge Company (loan)	300,000 00	
Grand Trunk Railway Company (loan)	15,142,633 33	
Kent Northern Railway (rails loan)	58,334 27	
Salisbury and Harvey Railway (loan including rails)	29,391 01	
St. John Bridge and Railway Extension (loan)	433,900 00	
Windsor and Annapolis Railway	1,193,369 00	
Canadian Pacific Railway Subsidy	25,000,000 00	
Western Counties	500,000 00	
		146,680,734 46
Agreeing with subsidy No. 3, Part II, accountant's statement to June 30, 1902		27,831,830 37

No. 1.—Summary Statement of Capital for the Year ended June 30, 1902.

Name of Railway	Length in Use. Owned	Length in Use. Operated under Agreement	Amount authorized. Authorized.	Amount authorized. Guaranteed.	Amount authorized. Preference.	Amount authorized. Paid up.	Bonds, Debentures, &c., Issued. Authorized.	Bonds, Debentures, &c., Issued. Issued.	Bonds, Debentures, &c., Issued. Rate of Interest.	Bonds, Debentures, &c., Issued. Redemption or Sinking Fund.	Bonds, Debentures, &c., Issued. Paid up.	Provinces.	Provincial Government Aid. Loans.	Provincial Government Aid. Bonus.	Provincial Government Aid. Subscription to Stock or Bonds.	Provincial Government Aid. Paid up.	Municipal Aid. Loans.	Municipal Aid. Bonus.	Municipal Aid. Subscription to Stock or Bonds.	Municipal Aid. Paid up.	Dominion Government Aid. Number of Acts.	Dominion Government Aid. Subscribed.	Dominion Government Aid. Paid.	Total Capital. Subscribed.	Total Capital. Paid up.	Interest Paid. Amount.	Interest Paid. Rate of Interest.	Total Cost per Mile of Railway. Working Stock.	Remarks.
	Miles.	Miles.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	p. c.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	p. c.	$ cts.	
[illegible]	166		100,000 00	140,000 00	300,000 00	2,500,000 00	3,000,000 00	1,800,000 00	4	1,375,000 00	1,375,000 00														4,675,000 00	4,175,000 00	187,000 00	4	28,162 65	1) Atlantic Railway, 107 miles: Power vs. Lethbridge, has been sold to Can. 2) Ry Co., of which 2 miles, between Macleod and the old Lethbridge line,
[illegible]	18		150,000 00	150,000 00	172,200 00					50,000 00	50,000 00														200,000 00	200,000 00				3) Atlantic & Lake Superior Railway, 18 miles, from Sault Ste. Marie to
[illegible]	21.5	140 50	10,000,000 00	10,000,000 00	10,000,000 00	1,250,000 00	1,250,000 00	1,250,000 00	4	1,250,000 00	1,250,000 00														1,250,000 00	1,250,000 00	50,000 00	4	58,139 53	4) Bay of Quinte Railway, 21.5 miles: Belleville to Deseronto. Leased
[illegible]	203		1,000,000 00	240,000 00	124,500 00	1,240,500 00	1,240,500 00	1,240,500 00	4 & 5	1,000,000 00	1,000,000 00	Quebec													2,240,500 00	2,240,500 00	89,620 00	4	11,031 53	5) Brockville & Ottawa Railway, 126 miles: Brockville to Ottawa. Leased
[illegible]																													to the Canada Atlantic Railway Co.
[illegible]																													6) Brockville & Westport Railway, 56 miles: Brockville to Westport. Leased
[illegible]																													to the Rideau Canal Co.
[illegible]																													7) Cobalt Central Railway, 9 miles: Cobalt to Cobalt Lake.
[illegible]																													8) Cobourg, Peterborough & Marmora Railway, 36 miles: Cobourg to Marmora.
[illegible]																													9) Credit Valley Railway, 17 miles: Toronto to Streetsville. Leased to
[illegible]																													the Canadian Pacific Railway Co.
[illegible]																													10) Dominion Atlantic Railway, 68 miles: Kentville to Yarmouth. Leased
[illegible]																													to the Dominion Atlantic Railway Co.
[illegible]																													11) Dominion Coal Co., 9 miles: Dominion to Victoria Mines.
[illegible]																													12) Dominion Iron & Steel Co., 5 miles: Sydney to Sydney Mines.
[illegible]																													13) Drummond County Railway, 27 miles: Drummondville to St. Hyacinthe.
[illegible]																													14) Dundas, Waterdown & Beverley Railway, 7 miles: Dundas to Waterdown.
[illegible]																													15) Edmonton, Yukon & Pacific Railway, 1 mile: Edmonton to Strathcona.
[illegible]																													16) Elgin & Havelock Railway, 12 miles: Havelock to Petrolia.
[illegible]																													17) Erie & Huron Railway, 29 miles: Port Burwell to Tillsonburg.
[illegible]																													18) Essex Terminal Railway, 5 miles: Windsor to Walkerville.
[illegible]																													19) Fraser River Railway, 15 miles: Port Moody to Fort Langley.
[illegible]																													20) Galt, Preston & Hespeler Railway, 6 miles: Galt to Hespeler.
[illegible]																													21) Georgian Bay & Seaboard Railway, 1 mile: Penetanguishene to Midland.
[illegible]																													22) Grand Trunk Railway, 1,836 miles: Point Levis to Sarnia, Montreal to
[illegible]																													Portland, Me., Island Pond, Vt., Detroit, Mich., Chicago, Ill., Buffalo,
[illegible]																													N.Y., Black Rock, N.Y., Suspension Bridge, N.Y., Niagara Falls, N.Y.,
[illegible]																													Fort Erie, Ont., Niagara Falls, Ont., Hamilton, Ont., Toronto, Ont.,
[illegible]																													Brockville, Ont., Prescott, Ont., Coteau Junction, Que., Valleyfield, Que.,
[illegible]																													Montreal, Que., Quebec, Que., Richmond, Que., Island Pond, Vt., Portland,
[illegible]																													Me., Boston, Mass., Wallaceburg, Ont., Sarnia, Ont., Sarnia Tunnel, Ont.,
[illegible]																													Port Huron, Mich., Detroit, Mich., Chicago, Ill., Buffalo, N.Y., Niagara
[illegible]																													Falls, N.Y., Suspension Bridge, N.Y., Niagara Falls, Ont., Fort Erie, Ont.,
[illegible]																													Hamilton, Ont., Toronto, Ont., Brockville, Ont., Prescott, Ont., Coteau
[illegible]																													Junction, Que., Valleyfield, Que., Montreal, Que., Quebec, Que., Richmond,
[illegible]																													Que., Island Pond, Vt., Portland, Me., Boston, Mass., Wallaceburg, Ont.,
[illegible]																													Sarnia, Ont., Sarnia Tunnel, Ont., Port Huron, Mich., Detroit, Mich.,
[illegible]																													Chicago, Ill., Buffalo, N.Y., Niagara Falls, N.Y., Suspension Bridge, N.Y.,
[illegible]																													Niagara Falls, Ont., Fort Erie

No. 2.—SUMMARY STATEMENT of the different descriptions of Rolling Stock for the year ended June 30, 1902.

| | Length of Line | Number of Engines | Number of Stone Dump Cars | Number of Platform Cars | Number of Box Cars | Number of Cattle Cars | Number of Coal Cars | Number of Coal and Stock Cars | Number of Refrigerator Cars | Number of Fish Cars | Number of Caboose Cars | Number of Sand Cars | Number of Derrick Cars | Number of Pile Drivers | Number of Passenger Cars | Number of Baggage, Mail and Express Cars | Number of Colonist Cars | Number of Cars for Conveying Laborers | Number of Dining Cars | Number of Cars for Officials, Employees and Service | Number of Cars for Sleeping Purposes | Number of Cars for Hospital Purposes | Number of Cars for Prisoners and Police | Number of Cars for Post Office Purposes | Number of Cars for Exhibition Purposes | Number of Cars for Breakdown Purposes | Number of Cars for Ballasting | Number of Cars for Snow Ploughs | Number of Cars for Wrecking Purposes | Number of Cars for Testing Purposes | Number of Cars for Advertising Purposes | Number of Cars for Other Purposes | Number of Cars for Other Purposes | Number of Cars for Other

STEAM RAILWAYS

SUMMARY STATEMENTS RELATING TO MILEAGE, ROLLING STOCK, CHARACTERISTICS OF ROADS, OPERATIONS, PASSENGERS AND FREIGHT CARRIED, EARNINGS, OPERATING EXPENSES AND ACCIDENTS.

No. 3.—Summary Statement of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.
1	Alberta Railway and Coal Co.	64·62	.....	.....	64·62	13·21	.....	35
2	†Albert Southern 16·00 Harvey Branch 3·00	19·00	.....	.....	19·00	.....	.....	.....
3	Algoma Central and Hudson Bay	70·50	180·50	.....	70·50	10·25	.....	85
4	Atlantic & Lake Superior, comprising— Baie des Chaleurs 100·00 Great Eastern 23·00 Ottawa Valley 7·00	130·00	23·00 82·00	....	130·00	4·00	.....	56
5	Bay of Quinté, including 4·00 Kingston, Napanee & Western 60·82	64·82	.....	.....	64·82	7·00	.....	56, 60 & 65
6	Bedlington and Nelson	15·20	.....	.....	15·20	·87	.....	56
7	British Yukon	90·32	.....	.....	90·32	7·97	.....	45 & 56
8	Brockville, Westport & Sault Ste. Marie	45·00	.....	.....	45·00	2·00	.....	56
9	‡Bruce Mines & Algoma	16·62	.....	.....	16·62	.....	.....	56
10	Buctouche and Moncton	32·00	.....	.....	32·00	2·50	.....	54 & 56
11	Calgary and Edmonton	295·93	.....	.....	295·93	9·81	.....	56
12	Canada Atlantic, including Ottawa, Arnprior and Parry Sound 400·30 Leased lines— Central Counties 37·40 Pembroke Southern 20·90	458·60	.....	.....	458·60	97·00	.....	56, 72, 73, 75 ....
13	Canada Coals and Railway Co., formerly Joggins	12·00	.....	.....	12·00	3·00	.....	56
14	Canada Eastern	136·00	.....	.....	136·00	6·50	.....	56½ to 60
15	Canada Southern 359·24 Leased lines— Sarnia, Chatham & Erie 7·00 Leamington & St. Clair 15·95	382·19	.....	.....	382·19	178·62	.....	60, 65 & 80
16	Canadian Northern, comprising Lake Manitoba Ry. and Canal Co.'s line, Winnipeg Great Northern Railway, Manitoba South Eastern Ry., Ontario and Rainy River Ry. and Port Arthur, Duluth and Western Ry. 892·62 Lines operated by Canadian Northern— Northern Pacific & Manitoba. 320 51 Portage & North Western 35·07	1,248.20	.....	.....	1,248·20	84·68	.....	56 & 60
17	Canadian Government Railways— Intercolonial, exclusive of Windsor Branch, 32 miles, but including Drummond County	1,301·94	.....	.....	1,301·94	236·03	.....	56, 58, 67 & 80..
18	Prince Edward Island	209·00	.....	28·00	181·00	17·00	38	50, 52, 56
19	††Canadian Pacific 4,582·50 Leased lines— Fredericton 22·10 New Brunswick 175·00 New Brunswick and Canada 117·20							

†Not in operation. *Undergrade crossing. ‡Not in operation. ‖132·38 miles of double track.

Roads, &c., for the year ended June 30, 1902.

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.	Number of Level Crossings. Guarded.	Number of Level Crossings. Not guarded.	Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
						Feet.					Feet.		Ft.	
2640	Fishplates			3					3		573	53	3·00	1
														2
8000	Bonzano joints and 6 bolt angle-bars		1	24	2	14 7″			1	1	478	132	4·8½	3
2640	Angle and fishplates			61	4	22·0			4		717	67	4·8½	4
3000	Angle iron			50	*1		1	1	4		955	90	4·8½	5
2640	Angle-bars			2					2		573	53	4·8½	6
2816	"								1		359	206	3·00	7
2640	Fisher's bridge joint			35					2		717	58	4·8½	8
2640	Four bolt angle-bars			10				1	1		637	79	4·8½	9
2640	Fishplates			20				1	1		816	74	4·8½	10
2640	Angle bars and fishplates	10		167					3		1,146	53	4·8½	11
2816	" "	2	11	195	4	22·0	6	12	10	3	955	66	4·8½	12
3000	Fishplates			8					1		955	79	4·8½	13
2640	Fish and angle-plates		1	35				1	4	1	955	80	4·8½	14
2816 3168	Angle splice (4 and 6 bolts) and crop end joints		9	418	19	21·6	12	17	17	10	913	75	4·8½	15
2640	Angle-bars	§125	1	662				12	6		573	63	4·8½	16
2640 2816	Bar and angle fishplates	2	22	482	30	18·6 to 35·0	5	9	29	22	694	65	4·8½	17
2640	Angle and fishplates			964	2	17·3	1				396	90	3·6	18

§Includes 31 warehouses. ††35·69 miles of double track.

No. 3.—Summary Statement of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.
	Can. Pac.—Leased lines—*Con.*							
	St. John and Maine..... 92·10							
	St. John Bridge and Railway Extension. .. .. 2·00							
	St. Stephen and Milltown... 4·60							
	Tobique Valley .. .. 28·00							
	*Cap de la Madeleine..... 3·00							
	Montreal and Lake Maskinongé .. .. 12·90							
	Atlantic and North-west .. 201·00							
	Montreal and Ottawa ... 93·20							
	Ontario and Quebec.. .... 473·00	7,321·00	....	....	7,321·00	975·38	.....	52, 56, 60, 72, 73, 80 & 100. ..
	St. Lawrence and Ottawa .. 58·40							
	Credit Valley..... ..... 175·70							
	Guelph Junction. ... ... 15·00							
	Toronto, Hamilton & Buffalo 2·70							
	Toronto, Grey and Bruce.. 191·10							
	West Ontario Pacific..... 26·60							
	Manitoba & North-western. 252·40							
	Manitoba South-western Colonization ... . 214·40							
	Columbia and Kootenay.... 60·50							
	Nakusp and Slocan ..... 36·30							
	Shuswap and Okanagan . 50·80							
	Columbia and Western.. .. 157·10							
	Great North-west Central... 71·00							
	British Columbia Southern.. 202·40							
20	Cape Breton Ry.....	.....	30·00	.....	.....	.....	.....	60 & 72
21	Caraquet..... ...	68·00	.....	.....	68·00	3·25	.....	50
22	Carillon and Grenville....	13·00	.....	13·00	.....	·25	65	.....
23	Central Ontario....	125·00	... .	....	125·00	13·00	.....	42 & 56
	Marmora Ry. & Mining Co., formerly Ontario, Belmont & Northern....	9·60	.... . .	. .	9·60	.....	.....	56
24	Central of New Brunswick	45·66	.....	.....	45·66	2·00	.....	52 & 56
25	Central, Nova Scotia, formerly Nova Scotia Central..... ..	74·00	.....	.....	74·00	3·50	.....	56
26	Cobourg, Northumberland and Pacific..	.....	49·00	.....	.....	.....	.....	... ...
27	Crow's Nest Southern...	.....	48.47	....	.....	.....	... .	... ...
28	Cumberland Ry. and Coal Co.	32·00	14·00	....	32·00	16·00	....	56 & 67
29	Dominion Atlantic, comprising—							
	Windsor and Annapolis..... 87·50							
	Cornwallis Valley..... ..... 14·00							
	Yarmouth and Annapolis (Western Counties).. .. 87·00	220·50	.....	.....	220·50	20·75	.....	56, 66, 67, 70, 72.
	Windsor Branch, leased from Intercolonial. ..... 32·00							
30	Elgin and Havelock.....	28·00	.....	.....	28 00	2·00	.....	46 & 56
31	Esquimalt and Nanaimo	78·00	.....	.....	78·00	5·06	.....	54, 56 & 60
32	Fredericton & St. Mary's Ry. Bridge Co.	1·33	.....	1·33	.....	.....	56	.....
33	*Grand Trunk. 880.35	883·79						
	Wharf Br., Montreal. 3·44							
	Great Western.... ..... 562·30							
	Brantford, Norfolk and Port Burwell .. .. 34·39							
	Buffalo and Lake Huron.... 162·00							

*2·32 miles returned by Co. † 101 owned by Elevator companies. * 468 miles of double track.

SESSIONAL PAPER No. 20

Roads, &c., for the year ended June 30, 1902—*Continued.*

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.	Number of Level Crossings.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	
			Guarded.	Not guarded.										Number.
						Ft.					Ft.		Ft.	
2640	Bonzano joints, angle-bars and fishplates	†112	44	4,426	87	18·11 20·6 21·6	81	58	82	70	288	238	4·8½	19
2640	Six hole steel angle-bars			14					1		715	79	4·8½	20
2600	Fishplates			12					4	1	1,000	60	4·8½	21
1760	Chairs		1	8	1	16·0		1			1,910	100	5·6	22
2640	Fishplates and angle-bars			105	1	20·0		2	5	1	955	105	4·8½	23
2300	Fishplates			8					1		717	72	4 8½	
2640	"			21	2	15·0			1		816	74	4·8½	24
2640	Angle-bars			32	1	20·0			1		819	80	4·8½	25
														26
														27
2400 2600	Fishplates, bolts and angle-bars			17					1		820	160	4·8½	28
2640	Fishplates		1	109	4	16·5 22·0			4	2	637	79	4·8½	29
2640	"			25				1	1		1,910	90	4·8½	30
2992	Angle fishplates and bolts			17	2	23·0	3	2	2		573	80	4·8½	31
2564	Angle and fishplates			6					2		1,433	50	4·8½	32

No. 3.—Summary Statement of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.
	Grand Trunk—*Con.*							
	Grand Trunk, Georgian Bay and Lake Erie	173·00						
	Owen Sound Branch	12·42						
	London, Huron and Bruce	68·00						
	Waterloo Junction	10·25						
	South Norfolk	17·00						
	Wellington, Grey and Bruce	168·13						
	Northern	172·10						
	North Simcoe	33·00						
	Hamilton & North-western	173·00						
	Northern Pacific Junction	111·37	3,157·48	.....	.....	3,157·48	773·94	..... 50 to 100
	Toronto Belt Line	12·79						
	Midland	166·00						
	Grand Junction	85·21						
	Toronto and Nipissing	85·00						
	Lake Simcoe Junction	26·00						
	Victoria	53·00						
	Whitby, Port Perry and Lindsay	46·00						
	*Cobourg, Blairton and Marmora	15·00						
	Jacques Cartier Union	6·50						
	Montreal and Champlain Junction	61·73						
	Beauharnois Junction	19·50						
34	Great Northern Ry. of Canada, including Lower Laurentian	175·10	.....	.....	175·10	12·25	.....	56, 60 & 70
35	Gulf Shore	16·78	.....	.....	16·78	1·01	.....	56
36	Halifax and Yarmouth	50·10	61·00	.....	50·10	2·83	.....	56
37	Hampton and St. Martins	29·00	.....	.....	29·00	·50	.....	56
38	Hereford	53·30	.....	.....	53·30	8·46	.....	56
39	Irondale, Bancroft and Ottawa	48·00	.....	.....	48·00	2·50	.....	56
40	Interprovincial Bridge and approaches	1·40	.....	.....	1·40	.....	.....	75
41	Inverness Ry. & Coal Co., formerly Inverness and Richmond	61·00	.....	.....	61·00	4·00	.....	56
42	James Bay	.....	5·00	.....	.....	.....	.....	.....
43	Kaslo and Slocan, B.C	31·80	.....	.....	31·80	1·25	.....	45
44	Kent Northern	27·00	.....	.....	27·00	4·00	.....	56
	St. Louis and Richibucto	7·00	.....	.....	7·00	.....	.....	.....
45	Kettle River Valley	.....	3·80	.....	.....	.....	.....	.....
46	Kingston and Pembroke	112·85	.....	9·75	103·10	21·00	56	50 to 84
47	L'Assomption	3·33	.....	.....	3·33	·33	.....	56
48	Lake Erie and Detroit River, including Erie and Huron...198 35	222·35	.....	.....	222·35	36·82	.....	51 to 70
	Leased lines—London & Port Stanley	24·00						
49	Lenora Mount Sicker	11·50	.....	.....	11·50	.28	.....	20 & 28
50	Lindsay, Bobcaygeon & Pontypool	.....	3·78	.....	.....	.....	.....	.....
51	Liverpool & Milton	5·00	.....	.....	5·00	.....	.....	56
52	Lotbinière and Mégantic	30·34	.....	.....	30·34	6·35	.....	56
53	Manitoulin and North Shore	16·00	.....	.....	16·00	1·50	.....	65
54	Massawippi Valley	35·46	.....	.....	35·46	7·35	.....	60
55	Midland of Nova Scotia	57·50	.....	.....	57·50	·50	.....	60

*Not in operation.

SESSIONAL PAPER No. 20

Roads, &c., for the Year ended June 30, 1902—*Continued.*

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.	Number of Level Crossings.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	
			Guarded.	Not guarded.										Number.
						Ft.					Ft.		Ft.	
2640 / 3200	Angle-bars and fishplates	10	97	2,948	243	15·9½ to 40·0	135	54	54	76	717	106	4·8½	33
2640	Fishplates ½ plain, ½ angle and angle-bars	2		88	1	21·6		5	5		2,292	104	4·8½	34
2600	Fishplates			19					1		573	53	4·8½	35
2640	Angle-bars			31					1		955	79	4·8½	36
2640	Fishplates			18					1		955	90	4·8½	37
2800	"			28				2	3		955	66	4·8½	38
2640	Flat fishplates			16					1		1,000	60	4·8½	39
2640	Six bolt angle-bars				9	21·6	9		1		573	48	4·8½	40
3000	Angle-bars			25					1		637	78	4·8½	41
														42
2640	Angle-bars and 4 bolts			13	1	22·6	2			1	193	172	3·00	43
2432	Fishplates and bolts			5					1		1,000	60	4·8½	44
														45
2640	Plain and angular fishplates			56	1	16·0	1	6	5	13	955	79	4·8½	46
2500	Fishplates			1					1		955	20	4·8½	47
2800	Angle-bars		3	264	5	20·0 to 21·0		10	12		717	60	4·8½	48
3168	Fishplates and bolts			*5							764	501	3·00	49
														50
2640	Fishplates			1			2				100	90	4·8½	51
2640	Fish and angle-plates			10				1	2		717	80	4·8½	52
3000	Straight angle-bars			1					2		717	650	4·8½	53
2600 / 2800	Fishplates		1	28	1	19·0		1	2	1	441	76	4·8½	54
2640	Angle-bars			24				1	2		882	54	4·8½	55

No. 3.—Summary Statement of Characteristics of

Number.	Name of Railway.	Length of Line.				Length of Siding.	Weight per Yard.	
		Completed. (Rails laid.)	Under Construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.
		Miles.	Miles.	Miles.	Miles.	Miles.	Lbs.	Lbs.
56	Montfort and Gatineau Colonization	33·00			33·00	·42		56
57	Montreal & Atlantic, formerly South-eastern 139·60; Lake Champlain & St. Lawrence Junction 60·70	200·30			200·30	23·50		56,60,72,73
58	Montreal and Province Line, formerly Montreal, Portland and Boston	40·60		8·60	32·00	1·00	38	56
59	Montreal and Vermont Junction	23·60			23·60	2·00		60 & 72
60	New Westminster Southern	24·10			24·10	2·92		56
61	Nelson and Fort Sheppard	54·70			54·70	3·44		56
62	New Brunswick & Prince Edward Island	36·00			36·00	1·50		56
63	Nosbonsing and Nipissing	5·50			5·50	1·25		56
64	Nova Scotia Southern		117·00					56 & 70
65	Nova Scotia Steel & Coal Co.'s Ry	12·50			12·50	3·87		56
66	Orford Mountain	31·00		3·50	27·50	1·00		56
67	Ottawa, Northern and Western	59·10			59·10	2·00		56 & 70
68	Ottawa and New York	56·79			56·79	3·24		65
69	Philipsburg Ry. and Quarry Co.'s Ry	7·50			7·50			56
70	*Pontiac and Renfrew	4·25			4·25	·75		56
71	Pontiac Pacific Junction	77·70			77·70	4·00		56 & 70
72	Qu'Appelle, Long Lake & Saskatchewan	253·96			253·96	7·75		56
73	Quebec Bridge and approaches		10·06					
74	Quebec Central	213·50			213·50	20·50		56, 60 & 70
75	Quebec and Lake St. John	241·00			241·00	32·50		50 to 70
76	†Quebec, Montmorency and Charlevoix (now Quebec Ry., Light and Power Co.)	30·00			30·00	5·00		56 & 70
77	Quebec Southern, formerly United Counties & East Richelieu Valley Rys 82·00; Including the South Shore 61·50	143·50			143·50	9·00		56
78	Red Mountain	9·53			9·53	3·34		56
79	‡Restigouche and Western	10·00	100·00		10·00	·76		56
80	Rutland and Noyan	5·00			5·00	0·20		60
81	Salisbury and Harvey	45·00		31·00	14·00	6·00	56	56
82	Shore Line, New Brunswick	82.50			82·50	2·50		50
83	Stanstead, Shefford and Chambly	43·00		12·00	31·00	2·00	60	60
84	St. Clair Tunnel, Yard and approaches	2·23			2·23	11·00		100
85	St. John Valley and Rivière du Loup		6·00					
86	St. Lawrence and Adirondack	32·82			32·82	6·87		72 & 80
87	St. Mary's River	30·00			30·00			28
88	Sydney & Louisburg (Dom. Coal Co.)	48·96			48 96	4·00		56 & 80
89	South Shore, formerly Montreal & Sorel							
90	Temiscouata	113·00			113·00	3·00		56
91	Tilsonburg, Lake Erie and Pacific	20·00	15·33		20·00	5·00		56, 65 & 70
92	Thousand Islands	6·33			6·33	1·00		56 & 60
93	§Toronto, Hamilton and Buffalo	87·39			87·39	20·00		56, 65, 66, 70 & 80
94	Vancouver & Lulu Island		17·20					
95	Victoria and Sidney, B.C 16·26; Leased line—Victoria Terminal Ry. & Ferry Co 1·14	17·40			17·40	1.20		50
96	York and Carleton	5·75			5 75	·10		56
	Total	18,867·83	766·08	107·18	18,760·65	2,829·09		

* Not in operation. †6 miles of double track. ‡ Not in operation. § Included in Quebec Southern.

SESSIONAL PAPER No. 20

Roads, &c., for the year ended June 30, 1902—*Concluded.*

Number of Ties per Mile.	Nature of Rail Fastenings.	Number of Grain Elevators.	Number of Level Crossings.		Number of Overhead Bridges.	Height of Overhead Bridges above rail level.	Number of Public Roads under Crossings.	Number of Level Crossings of other Railways.	Number of Junctions with other Railways.	Number of Junctions with Branch Lines.	Radius of Sharpest Curve.	Number of Feet per Mile of heaviest gradient.	Gauge of Railway.	Number.
			Guarded.	Not guarded.		Feet.					Ft.		Ft.	
2600	Fishplates			20	1	22·0			1		573	158	4·8½	56
2640	Fishplates and angle-bars			164	1	18·10	2	6	6	2	441	140	4·8½	57
3000	Fishplates, bolts and wrought iron chairs			21				3	1	2	1,433		4·8½	58
3000	Fishplates and bolts			51					3		2,865	52	4·8½	59
2640	22″ angle-bars, 4 bolts			25							717	89	4·8½	60
2640	Angle-bars			5					2		478	132	4·8½	61
2400	Fishplates			26					1		750	66	4·8½	62
3000	Fishplates			2				1	1		955	132	4·8½	63
2640	Steel angle-bars, 4 bolts and nuts							1			717	80	4·8½	64
2640	Bar with bolt			5					1	1	955	79	4·8½	65
2640	Fishplates			17					1		955	74	4·8½	66
2640	Plain and angle-bars			50	1	21·6		1	2		573	106	4·8½	67
2750	Angle-bar and bolt			70	1	22·0		3	3		2,865	40	4·8½	68
2816	Fishplates			7					1	1	955	52	4·8½	69
2640	"								1		717	106	4·8½	70
2640	Angle-bars		3	57				3	3		1,146	53	4·8½	71
2640	Angle-bars and fishplates	8		53					1	1	1,146	65	4·8½	72
														73
2640	Fish and angle-plates			115			3	2	7	2	882	76	4·8½	74
2640	Fishplates and angle-bars	1	2	56			3		2	2	717	105	4·8½	75
2640	Plain and angle fishplates		1	10				1	2		1,433	42	4·8½	76
2640	Fishplates			85				5	9		717	40	4·8½	77
2640	Angle-bars										287	185	4·8½	78
2600	Fishplates			7					1		573	79	4·8½	79
2640	Angle-bars			2				1	2		637	26	4·8½	80
2600	Fishplates and sleeves			27	2	15·0			1		717	80	4·8½	81
2992	Fishplates			15	5	23·0		3	3		573	85	4·8½	82
2640	Fishplates, bolts and wrought iron chairs			42	1	18·0		3	4		1,910	60	4·8½	83
												105	4·8½	84
														85
2816	36 inch., 5/8 angle-bars			29	1	20·6	2	2	3		1,146	58	4·8½	86
2113	Fishplates			6					1		382	79	3·00	87
2300	Angle-bars, 4 and 6 bolts		1	28	2	18·0	2	2	1	7	955	90	4·8½	88
														89
2640	Fish and angle-plates			38			2	1	2	1	819	79	4·8½	90
2640	Angle-bars	3		39	1	21·0	3	2	4		955	52	4·8½	91
3000	Angle-iron			8					1		410	84	4·8½	92
2640 / 3000	4 bolt angle-bars		6	122	15	22·0	2	5	6	3	675	79	4·8½	93
														94
2464	8″ plain fishplate			13			1	1	1		637	106	4·8½	95
2600	Side-plates and bolts			8					1		675	64	4·8½	96
		275	205	12,740	452		175	244	365	224				

§ 4·69 miles of double track. ¶ Total double track 646·76 miles.

No. 4.—Summary Statement of the Operations of the

Number.	Name of Railway.	Mileage.	Train Mileage.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
1	Alberta Railway and Coal Co.	64·62	.....	21,125	28,066	49,191
2	Algoma Central and Hudson Bay	70·50	5,073	51,083	26,608	82,764
3	Atlantic and Lake Superior, comprising—					
	* Baie des Chaleurs 98·00					
	Great Eastern, 23 miles not under traffic	98·00	60,000	5,000	.....	65,000
	Ottawa Valley, 7 miles not under traffic					
4	Bay of Quinté Railway and Navigation Co. 4·00	64·82	.....	.....	136,003	136,003
	Kingston, Napanee & Western..60·82					
5	Bedlington and Nelson	15·20	.....	.....	7,044	7,044
6	British Yukon	90·32	17,704	25,212	38,384	81,300
7	Brockville, Westport & Sault Ste. Marie.	45·00	1,904	876	30,890	33,670
8	Buctouche and Moncton	32·00	.....	.....	20,160	20,160
9	Calgary and Edmonton	295·93	57,991	130,998	92,740	281,729
10	Canada Atlantic, including Ottawa, Arnprior and Parry Sound 400·30	458·60	454,729	814,036	160,549	1,429,314
	Leased—Central Counties. 37·40					
	Pembroke Southern.. 20·90					
11	Canada Coals & Ry. Co., formerly Joggins	12·00	.....	.....	20,000	20,000
12	Canada Eastern	136·00	90,790	42,050	36,932	169,772
13	Canada Southern 359·24	382·19	1,499,887	2,162,180	146,715	3,808,782
	Leased lines—					
	Sarnia, Chatham and Erie.. 7·00					
	Leamington and St. Clair.. 15·95					
14	Canadian Northern, comprising Lake Manitoba Railway and Canal Co.'s line, Winnipeg Great Northern Ry., Manitoba South Eastern Ry., Ontario and Rainy River Ry., and Port Arthur, Duluth & Western Ry. 892·62	1,248·20	113,284	353,832	251,158	718,274
	Lines operated by Can. Northern—					
	Northern Pacific and Manitoba.320·51					
	Portage and North Western... 35·07					
15	Canadian Government Railways—					
	Intercolonial	1,301·94	2,367,905	.....	3,700,042	6,067,947
	Prince Edward Island	209·00	100,677	.....	172,561	273,238
16	Canadian Pacific owned 4,582·50	7,321·00	7,632,219	11,406,770	1,465,129	20,504,118
	Leased lines—					
	Fredericton 22·10					
	New Brunswick 175·00					
	New Brunswick & Canada 117·20					
	St. John and Maine 92·10					
	St. John Bridge and Ry. Extension 2·00					
	St. Stephen and Milltown 4·60					
	Tobique Valley 28·00					
	*Cap de la Madeleine 3·00					
	†Montreal and Lake Maskinongé 12·90					
	Atlantic and North-west. 201·00					
	Montreal and Ottawa 93·20					
	Ontario and Quebec 473·00					
	St. Lawrence and Ottawa 58·40					
	Credit Valley 175·70					
	Guelph Junction 15·00					
	Toronto, Hamilton and Buffalo 2·70					
	Toronto, Grey and Bruce. 191·10					
	West Ontario Pacific 26·60					

SESSIONAL PAPER No. 20

Year and Mileage, for the Year ended June 30, 1902.

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
50,986	6,774	60,077	.....	14	1	
231,777	36,209	1,004,469	20	15	2	
65,000	13,865	18,520	25	20	3	* Also 2 miles from New Carlisle to Paspebiac not in operation.
136,003	82,736	353,599	.....	.....	4	
7,044	1,378	154,788	.... ..	10	5	Also running powers over C. P. R. from Creston Junction to Sirdar Junction, 8·7 miles.
81,748	14,879	26,459	15	15	6	
33,930	39,695	17,649	26	16	7	
21,412	10,935	21,658	16	16	8	
316,596	65,876	131,469	25	13	9	
1,714,572	368,571	1,545,240	30	15	10	
25,000	10,152	56,762	.....	20	11	
178,500	47,198	110,800	25	18	12	
4,886,338	802,494	4,209,924	46	15	13	
1,015,279	224,145	715,692	28	15	14	
7,636,113	2,186,226	2,385,816	25	15	15	Also running powers over Grand Trunk—
369,881	184,748	75,381	22	16		Point Lévis to Hadlow..... 1·50 Chaudière Curve to Chaudière ..... 1·18 Ste. Rosalie Junction to Montreal... 37·62 Total..... 40·30
						* 2·32 miles returned by Co. † 1·90 miles not in operation.
27,164,928	4,771,017	8,755,538	33	18	16	Also running powers over— Canada Atlantic Ry., Montreal and Ottawa Junction to Ottawa..... ·80 Grand Trunk Ry., Toronto to Hamilton Junction. .. .. 35·20 Total..... 36·00

No. 4.—Summary Statement of the Operations of the Year

Number.	Name of Railway.	Mileage.	Train Mileage.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
	Can. Pac.—Leased lines—*Con.*—					
	Manitoba and North-western	252·40				
	Manitoba South-western Colonization	214·40				
	Columbia and Kootenay	60·50				
	Nakusp and Slocan	36·30				
	Shuswap and Okanagan	50·80				
	Columbia and Western	157·10				
	Great Northwest Central	71·00				
	British Columbia Southern	202·40				
17	Caraquet		68·00		16,900	40,560	57,460
18	Carillon and Grenville		13·00	6,000	300		6,300
19	Central Ontario	125·00					
	Marmora Ry. and Mining Co., formerly Ontario, Belmont and Northern	9·60	134·60	16,450	11,300	97,500	125,250
20	Central of New Brunswick		45·66			11,475	11,475
21	Central of Nova Scotia, formerly Nova Scotia Central		74·00			49,793	49,793
22	Cumberland Railway and Coal Co.		32·00			70,183	70,183
23	Dominion Atlantic, comprising—						
	Windsor and Annapolis	87·50					
	Cornwallis Valley	14·00					
	Yarmouth and Annapolis (Western Counties)	87·00	220·50	224,746		314,415	539,161
	Windsor Branch, leased from Intercolonial	32·00					
24	Elgin and Havelock		28·00			14,796	14,796
25	Esquimalt and Nanaimo		78·00	138,793	88,699		227,492
26	Fredericton and St. Mary's Ry. Bridge		1·33				
27	Grand Trunk	880·35					
	Wharf Branch, Montreal	2·44	883·79				
	Great Western	562·30					
	Brantford, Norfolk and Port Burwell	34·39					
	Buffalo and Lake Huron	162·00					
	Grand Trunk, Georgian Bay and Lake Erie	173·00					
	Owen Sound Branch	12·42					
	London, Huron and Bruce	68·00					
	Waterloo Junction	10·25					
	South Norfolk	17·00					
	Wellington, Grey and Bruce	168·13					
	Northern	172·10	3,142·48	6,163,206	8,304,171	1,011,203	15,478,580
	North Simcoe	33·00					
	Hamilton and North-western	173·06					
	Northern Pacific Junction	111·37					
	Toronto Belt Line	12·79					
	Midland	166·00					
	Grand Junction	85·21					
	Toronto and Nipissing	85·00					
	Lake Simcoe Junction	26·00					
	Victoria	53·00					
	Whitby, Port Perry & Lindsay	46·00					
	Jacques Cartier Union	6·50					
	Montreal & Champlain Junction	61·73					
	Beauharnois Junction	19·50					
28	Great Northern Railway of Canada, including Lower Laurentian		175·10	186,230	190,896	30,233	407,359

and Mileage, for the Year ended June 30, 1902—*Concluded.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Hour.	Number.	Remarks.
57,460	5,872	21,133	15	15	17	
7,000	6,039	100	...	20	18	
172,276	81,486	197,848	25	20	19	
12,151	3,565	5,672	15	15	20	
56,153	47,386	31,089	20	20	21	
133,691	26,698	413,961	20	20	22	Also running powers over Dominion Atlantic from Middleton Junction to Middleton, 0·33 miles.
539,161	264,416	258,774	30	15	23	Also running powers over Intercolonial Ry., Halifax to Windsor Junction, 14 miles.
14,796	3,849	9,503	15	15	24	
227,492	131,520	98,838	25	20	25	
...	...	...	...	...	26	Also running privileges over Canada Eastern Ry., 0·17 miles.
18,746,358	7,334,607	10,080,963	34	18	27	Also running powers over Chaudière Branch of Intercolonial, 5·77 miles.
514,563	155,395	444,311	27	16	28	Also running powers over Quebec and Lake St John Ry., Quebec to River à Pierre, 56·50

No. 4.—Summary Statement of the Operations of the Year

Number.	Name of Railway.	Mileage.	Train Mileage.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
29	Gulf Shore	16·78			5,202	5,202
30	Halifax and Yarmouth	30·80	598	764	44,545	45,907
31	Hampton and St. Martins	29·00			12,600	12,600
32	Hereford	53·30	10,791	49,215		60,006
33	Inverness Railway and Coal Co., formerly Inverness and Richmond	61·00		4,285	38,692	42,977
34	Irondale, Bancroft and Ottawa	48·00	180		30,048	30,228
35	Kaslo and Slocan	31·80	1,011		22,689	23,700
36	Kent Northern	27·00			18,000	18,000
	St. Louis and Richibucto	7·00				
37	Kingston and Pembroke	112·85	65,104	12,672	63,232	141,008
38	L'Assomption	3·33			6,475	6,475
39	Lake Erie and Detroit River, including Erie and Huron 198·35 Leased line— London and Port Stanley 24·00	222·35	395,855	5,328	222,768	623,951
40	Lenora Mount Sicker	11·50			13,140	13,140
41	Liverpool and Milton	5·00			8,500	8,500
42	Lotbinière and Mégantic	30·34			18,220	18,220
43	Manitoulin and North Shore	16·00	178	5,454	6,709	12,336
44	Massawippi Valley	35·46	73,669	61,858	26,569	162,096
45	Midland of Nova Scotia	57·50	9,164		24,940	34,104
46	Montfort and Gatineau Colonization	33·00	21,100	31,200		52,300
47	Montreal and Atlantic, formerly South-eastern *103·00 Lake Champlain and St. Lawrence Junction 60·70	163·70	87,974	174,426	100,162	362,562
48	Montreal and Province Line	40·60	23,499	12,524	35,581	71,604
49	Montreal and Vermont Junction	23·60	73,147	105,395		178,542
50	New Westminster Southern	24·10	17,496	46	12,646	30,188
51	Nelson and Fort Sheppard	54·70	41,010	19,818		60,828
52	New Brunswick & Prince Edward Island	36·00	6,516	13,500	22,536	42,552
53	Nosbonsing and Nipissing	5·50		13,300		13,300
54	Nova Scotia Steel Co.'s Ry	12·50			15,000	15,000
55	Orford Mountain	31·00	17,528	1,140	8,920	27,588
56	Ottawa, Northern and Western	59·10	12,720		35,020	47,740
57	Ottawa and New York	56·79	80,803	33,779		114,582
58	Philipsburg Railway and Quarry Co.'s Ry	7·50			1,394	1,394
59	Pontiac Pacific Junction	77·70	28,502		26,878	55,380
60	Qu'Appelle, Long Lake & Saskatchewan	253·96		15,942	76,990	92,932
61	Quebec Central	213·50	145,939	138,945	302,007	586,891
62	Quebec and Lake St. John	241·00	156,450	129,382	49,464	335,296
63	Quebec, Montmorency and Charlevoix	30·00	*150,657		45,310	195,967
64	Quebec Southern, formerly United Counties and East Richelieu Valley Railways 82·00 And including South Shore from Oct. 17, 1901 61·50	143·50	101,744	45,784	79,654	227,182
65	Red Mountain	9·53	5,731	10,911		16,642
66	Rutland and Noyan	5·00				
67	Salisbury and Harvey	45·00			30,212	30,212
68	Shore Line, New Brunswick	82·50			57,116	57,116
69	Stanstead, Shefford and Chambly	43·00	33,669	13,497	32,386	78,952
70	St. Clair Tunnel	2·23				
71	St. Lawrence and Adirondack	32·82	126,001	19,512	49,914	195,427
72	St. Mary's River	30·00		2,360	9,935	12,295
73	Sydney and Louisburg, (Dom. Coal Co.)	48·96	63,000	240,000		303,000

and Mileage, for the Year ended June 30, 1902—*Continued.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
5,202	859	8,218	15	15	29	miles.
48,454	36,157	8,071	24	....	30	Also 19·3 miles not in operation.
12,600	4,637	8,843	15	15	31	
85,950	18,325	101,048	26	15	32	
51,627	26,139	24,357	20	14	33	
31,728	7,250	13,493	18	18	34	
39,493	10,694	23,680	12	12	35	
18,250	5,898	4,008	18	18	36	
.....	.....	.....	.....	.....	.....	No return received.
141,008	37,704	100,955	25	18	37	
6,475	6,715	450	15	15	38	
919,354	546,058	651,247	35	25	39	
13,140	424	12,773	6	6	40	
8,500	23,200	33,818	10	10	41	
21,252	9,063	27,890	20	20	42	
36,571	5,792	482,061	20	15	43	
223,339	122,705	302,641	25	12	44	Also running powers over Grand Trunk, Lennoxville to Sherbrooke, 2·95 miles.
34,104	20,025	19,880	28	19	45	Also running powers over Intercolonial, from Junction of Midland to Truro Station ·50 miles. For 8 months only ended June 30.
52,300	8,000	27,338	15	12	46	1902.
463,583	181,871	733,503	34	18	47	* Also 36·6 miles, from Sorel to Drummondville not in operation.
71,604	92,787	79,545	30	12	48	
178,542	113,436	965,516	40	15	49	
30,188	12,965	7,991	.....	.....	50	
60,828	21,552	52,407	20	12	51	Also running powers over C. P. R., Five Mile
47,530	18,944	47,523	20	15	52	Point to Nelson, B.C., 4·70 miles.
14,620	.....	30,177	...	20	53	
34,000	4,963	174,601	15	15	54	
27,588	6,888	22,903	28	16	55	
48,325	66,565	20,448	30	20	56	
114,582	92,738	51,362	35	18	57	
1,394	16	6,254	25	15	58	
56,487	37,137	43,572	30	25	59	Also running powers over Hull Electric, 2·5
92,932	14,754	65,055	18	14	60	miles.
598,345	203,296	386,610	25	15	61	Also running powers over Intercolonial, Har-
530,778	198,861	225,366	30	15	62	laka Junction to Lévis, 5 miles.
50,622	*434,279 214,808	18,565	21	21	63	* Electric.
228,694	125,961	157,801	34	22	64	
30,872	19,384	237,381	12	10	65	
.....	.....	.....	.....	.....	66	Operated by Rutland Ry. under operating
31,821	11,342	37,319	18	18	67	agreements.
57,116	15,097	20,462	20	20	68	
78,952	141,634	931,452	30	12	69	
89,274	.....	.....	.....	.....	70	
155,517	202,545	232,328	30	15	71	Also running powers over Grand Trunk, Valleyfield to Beauharnois, 13·30, and Cana-
12,291	2,606	8,839	....	14	72	dian Pacific from Adirondack Junction to
320,000	180,000	3,883,800	25	15	73	Montreal, 8·70 miles.

No. 4.—Summary Statement of the Operations of the Year

Number.	Name of Railway.	Mileage.	Train Mileage.			
			Passenger Trains.	Freight Trains.	Mixed Trains.	Total Train Mileage.
74	South Shore, formerly Montreal and Sorel ..(61·50)		15,598		14,364	29,962
75	Témiscouata	113·00	452		95,076	95,528
76	Tilsonburg, Lake Erie and Pacific..	20·00	13,000	7,000	20,000	40,000
77	Thousand Islands	6·33			39,088	39,088
78	Toronto, Hamilton and Buffalo	87·39	186,182	98,348	14,061	298,591
79	Victoria and Sidney, B.C. 16·26 Leased line, Victoria Terminal Railway and Ferry Co. 1·14	17·40	1,780		24,130	25,910
80	York and Carleton	5·75			700	700
		18,713·66	21,104,036	24,891,813	9,734,007	55,729,856

and Mileage, for the Year ended June 30, 1902—*Concluded.*

Engine Mileage.	Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs. Handled.	Average Rate of Speed of Passenger Trains—Miles per Hour.	Average Rate of Speed of Freight Trains—Miles per Hour.	Number.	Remarks.
29,962	53,635	15,737	40	22	74	For period ending Oct. 17, 1901, at which date this railway was acquired by the Quebec Southern Ry. Co.
90,783	31,308	96,300	26	17	75	
40,000	19,000	12,848	30	30	76	
39,088	34,249	23,818	.....	.....	77	
457,132	281,474	653,402	40	25	78	Also running powers over Hamilton and Dundas, from Hamilton to Dundas, 3·67 miles.
25,910	26,703	23,255	25	25	79	
700	1,800	3,583	17	17	80	
70,275,615	20,679,974	42,376,527	.....	.....		

No. 5.—Summary Statement of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
1	Alberta Railway and Coal Co.	64·62	350	35	13,900	278	2,900
2	Algoma Central and Hudson Bay	70·50	2,367	237	82,676	1,794	1,298
3	Atlantic & Lake Superior, comprising— Baie des Chaleurs *98·00; Great Eastern, not under traffic 23·00; Ottawa Valley " " 7·00	98·60	10,535	1,053	34,620	645	415
4	Bay of Quinté Ry. and Navigation Co. 4·00; Kingston, Napanee & Western 60·82	64·82	26,050	2,605	97,781	2,689	7,675
5	Bedlington and Nelson	15·20		145		65	
6	British Yukon	90·32	4,814	481	131,363	2,102	10,908
7	Brockville, Westport & Sault Ste. Marie	45·00	17,356	1,736	167,581	4,184	14,532
8	Buctouche and Moncton	32·00					
9	Calgary and Edmonton	295·93	34,478	3,428	2,068,376	35,934	52,905
10	Canada Atlantic, including Ottawa, Arnprior & Parry Sound 400·30; Leased— Central Counties 37·40; Pembroke Southern 20·90	458·60	501,102	50,110	19,038,924	475,973	50,704
11	Canada Coals & Ry. Co., formerly Joggins	12·00	1,999	204	17,332	297	
12	Canada Eastern	136·00	75,300	7,530	164,705	2,800	520
13	Canada Southern 359·24; Leased lines— Sarnia, Chatham & Erie 7·00; Leamington & St. Clair 15·95	382·19	3,048,760	304,876	17,496,553	368,644	789,540
14	Canadian Northern, comprising— Lake Manitoba Ry. and Canal Co's Line; Winnipeg Great Northern; Manitoba South Eastern; Ontario and Rainy River; Port Arthur, Duluth and Western Ry. 892.62; Lines operated by Canadian Northern; Northern Pacific and Manitoba 320·51; Portage and North Western 35·07	1,248·20	84,374	8,437	9,395,358	278,701	17,378
15	Canadian Government Railways— Intercolonial	1,301·94	1,311,707	131,170	2,959,761	65,627	98,495
	Prince Edward Island	209·00	17,876	1,788	477,582	8,162	27,194
16	Canadian Pacific— 4,582·50; Leased lines— Fredericton 22·10; New Brunswick 175·00; New Brunswick & Canada 117·20; St. John and Maine 92·10; St. John Bridge and Railway Extension 2·00; St. Stephen and Milltown 4·60; Tobique Valley 28·00; Cap de la Madeleine *3 00						

SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1902.

Stock.	Lumber of all kinds except Firewood.	Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Tons.	Feet.	Tons.	Cords. Tons.	Tons.	Tons.	Tons.		
1,597	2,626,000	3,939	.....	1,919	*52,309	60,077	1	*Includes 24,708 tons coke and 25,813 tons coal.
664	2,263,625	4,527	9,928 19,857	2,416	*974,974	1,004,469	2	*Includes saw logs, pulp wood and iron ore.
205	4,623,000	8,419	150 230	3,815	4,153	18,520	3	*Also 2 miles from New Carlisle to Paspebiac not in operation.
3,070	46,818,286	81,932	28,199 42,299	103,471	*117,533	353,599	4	
114	.....	43	 61	1,783	†152,577	154,788	5	Also running powers
4,157	810,665	1,216	....	13,327	5,176	26,459	6	over C. P. R. from
1,797	775,226	1,415	....	6,396	2,121	17,649	7	Creston Jct. to Sirdar Jct. 8·70 miles. †Coal, ore, etc.
.....	.....	3,748	 6,732	2,210	8,968	21,658	8	
26,280	15,286,240	19,584	1,098 1,646	28,685	15,912	131,469	9	
12,676	311,885,460	428,843	55,697 91,901	103,755	381,982	1,545,240	10	
.....	333,900	435	....	*52,977	2,849	56,762	11	*Coal.
260	31,200,000	31,200	4,600 5,750	23,200	40,060	110,800	12	
168,725	167,152,000	260,452	20,397 28,965	405,632	2,672,630	4,209,924	13	
7,137	46,002,000	69,003	85,497 119,696	101,420	131,298	715,692	14	
17,083	428,051,029	544,253	60,892 106,560	531,180	989,943	2,385,816	15	Also running power over Grand Trunk-
3,457	3,926,000	6,573	2,765 4,803	.....	50,598	75,381		Point Lévis to Hadlow.... 1·50
								Chaudière curve to Chaudière.. 1·18
								St. Rosalie Junction to Montreal...37·62
								40·30
								*2·32 miles ret. by Co.

No. 5.—Summary Statement of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
	Can. Pac.—Leased lines—*Con.*						
	Montreal & L. Maskinongé 12·90						
	Atlantic and North-west. 201·00						
	Montreal and Ottawa. 93·20						
	Ontario and Quebec 473·00						
	St. Lawrence and Ottawa. 58·40	7,321·00	4,921,003	492,100	52,690,920	1,434,407	960,842
	Credit Valley 175·70						
	Guelph Junction 15·00						
	Toronto, Hamilton & Buffalo 2·70						
	Toronto, Grey and Bruce. 191·10						
	West Ontario Pacific 26·60						
	Manitoba & North-west'rn 252·40						
	Manitoba South-western Colonization 214·40						
	Columbia and Kootenay 60·50						
	Nakusp and Slocan. 36·30						
	Shuswap and Okanagan 50·80						
	Columbia and Western 157·10						
	Great North-west Central 71·00						
	B. Columbia Southern 202·40						
17	Caraquet	68·00	7,500	750	6,000	176	400
18	Carillon and Grenville	13·00					71
19	Central Ontario 125·00						
	Marmora Ry. and Mining Co., formerly Ontario, Belmont and Northern 9·60	134·60	11,067	1,084	191,212	4,780	6,080
20	Central of New Brunswick	45·66					
21	Central, Nova Scotia, formerly Nova Scotia Central	74·00	18,508	1,850	3,122	69	249
22	Cumberland Ry. and Coal Co's. Line	32·00	11,405	1,140	49,421	840	14
23	Dominion Atlantic, comprising—						
	Windsor and Annapolis 87·50						
	Cornwallis Valley 14·00						
	Yarmouth and Annapolis (Western Counties) 87·00	220·50	153,720	15,372			11,581
	Windsor Branch, leased from Intercolonial 32·00						
24	Elgin and Havelock	28·00	2,211	221	2,147	36	770
25	Esquimalt and Nanaimo	78·00	607	61	7,030	176	3,754
26	Fredericton and St. Mary's Railway Bridge	1·33					
27	Grand Trunk 880·35						
	Wharf Branch, Montreal 3·44	883·79					
	Great Western 562·30						
	Brantford, Norfolk and Port Burwell 34·39						
	Buffalo and Lake Huron 162·00						
	Grand Trunk, Georgian Bay and Lake Erie 173·00						
	Owen Sound Branch 12·42						
	London, Huron and Bruce 68·00						
	Waterloo Junction 10·25						
	South Norfolk 17·00						
	Wellington, Grey and Bruce. 168·13						
	Northern 172·10						

Freight carried for the Year ended June 30, 1902—*Continued.*

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.	Tons.		
									†1·90 miles not in operation.
261,244	1,029,102,797	1,362,684	204,962	352,610	2,282,915	2,569,578	8,755,538	16	Also running powers over— C.A.R., Montreal and Ottawa Jct. to Ottawa.. 0·80 Grand Trunk Ry., Toronto to Hamilton Junction.. .35·20 36·00
180	11,500,000	16,500	500	900	1,900	727	21,133	17	
31	.....	.....	.....	.....	18	51	100	18	
6,080	8,692,100	10,866	49,130	98,261	54,632	*22,145	197,848	19	*Includes 13,892 tons of iron ore.
.....	2,364,000	2,955	700	1,203	.....	*1,514	5,672	20	*Includes 332 tons of coal.
76	8,088,000	12,132	1,990	2,985	4,349	9,628	31,089	21	Also running powers on Dom. Atlantic, Middleton Jct. to Middleton, 0·33 miles.
7	12,316,800	15,396	.....	.....	8,870	387.708	413,961	22	
3,099	43,184,000	64,777	1,715	2,531	56,861	*116,134	258,774	23	*Also running powers over I.C.R., Halifax to Windsor Jt., 14·00 miles. Includes 32,170 tons of apples and 57,371 tons of minerals.
205	4,275,000	7,125	132	264	1,081	571	9,503	24	
601	7,893,598	14,696	7,461	8,290	10,859	64,155	98,838	25	
.....	.....	.....	.....	.....	.....	.....	.....	26	Also running privileges over Canada Eastern Ry., 0·17 miles.

No. 5.—Summary Statement of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
	Grand Trunk—*Con.*						
	North Simcoe 33·00	3,142·48	5,484,155	548,415	76,816,880	1,920,422	1,364,935
	Hamilton & North-western 173·00						
	Northern Pacific Junction 111·37						
	Toronto Belt Line 12·79						
	Midland 166·00						
	Grand Junction 85·21						
	Toronto and Nipissing 85·00						
	Lake Simcoe Junction 26·00						
	Victoria 53·00						
	Whitby, Port Perry and Lindsay 46·00						
	Jacques Cartier Union 6·50						
	Montreal and Champlain Junction 61·73						
	Beauharnois Junction 19·50						
28	Great Northern Ry. of Canada, including Lower Laurentian	175·10	131,650	13,165	1,584,040	39,601	492
29	Gulf Shore	16·78	4,000	400	2,000	34	20
30	Halifax and Yarmouth (formerly Coast Line of Nova Scotia)	30·80	13,616	1,361	3,663	91	338
31	Hampton and St. Martin's	29·00					
32	Hereford	53·30	8,960	896	34,760	969	
33	Inverness Ry. and Coal Co., (formely Inverness and Richmond)	61·00	8,753	851	5,024	102	1,604
34	Irondale, Bancroft and Ottawa	48·00	3,950	395	3,120	78	1,632
35	Kaslo and Slocan	31·80	300	30	5,888	117	29
36	Kent Northern	27·00	3,916	391	900	15	59
	St. Louis and Richibucto	7·00					
37	Kingston and Pembroke	112·85	15,153	1,485	28,000	525	330
38	L'Assomption	3·33	470	47	800	15	
39	Lake Erie and Detroit River, including Erie & Huron 198·35 Leased London & Pt. Stanley 24·00	222·35	173,824	18,773	1,885,230	49,063	128,521
40	Lenora Mount Sicker	11·50					
41	Liverpool and Milton	5·00					
42	Lotbinière and Mégantic	30·34	6,520	652	8,290	143	49
43	Manitoulin and North Shore	16·00	297	30	5,667	113	136
44	Massawippi Valley	35·46	14,440	1,444	652,860	13,056	12,288

SESSIONAL PAPER No. 20

Freight carried for the Year ended June 30, 1902—*Continued.*

Stock.	Lumber of all kinds except Firewood.	Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried	Number.	Remarks.
Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
272,987	687,125,500	1,374,251	213,650	320,475	1,308,599	4,335,814	10,080,963	27 Also running powers over Chandière Branch of Intercolonial 5·77 miles.
246	53,430,000	80,145	25,550	17,033	55,965	238,156	444,311	28 Also running powers over Quebec and Lake St. John Ry., Quebec to River à Pierre, 56 50 miles.
10	6,000,000	6,600	20	30	1,144	.....	8,218	29
34	2,003,218	3,005	72	108	1,802	1,670	8,071	30 Also 19·30 miles not in operation.
.....	6,280,000	7,810	28	40	21	972	8,843	31
880	14,569,333	21,854	23,335	46,669	16,131	13,649	101,048	32
183	1,298,270	3,446	.....	.....	2,661	17,114	24,357	33
408	642,000	864	2,203	3,855	1,485	*6,408	13,493	34 *Includes pulpwood, tel. poles, &c.
22	740,299	1,540	9	12	1,984	*19,975	23,680	35 *Includes 18,895 tons ore.
23	410,000	584	125	200	2,795	....	4,008	36
.....	.....	.....	.....	.....	.....	.....	.....	Not operated.
165	20,920,000	31,380	12,740	23,520	39,020	4,860	100,955	37
.....	62,000	92	120	188	5	103	450	38
18,250	66,454,000	76,954	10,128	20,788	36,476	430,943	651,247	39
.....	60,000	90	.....	.....	466	*12,217	12,773	40 *Ore.
.....	735,518	1,200	.....	.....	17,618	*15,000	33,818	41 *Includes 10,000 tons pulpwood.
49	5,520,000	8,276	10,224	12,779	148	5,843	27,890	42
73	421,750	844	21	41	2,425	*478,535	482.061	43 *Principally nickel ore.
1,644	90,288,000	124,147	.....	.....	23,016	*139,334	302,641	44 Also running powers over Grand Trunk, Lennoxville to Sherbrooke, 2·95 miles. *Includes ore and copper, 35,423, wood pulp. 46,289 tons, stone & sand, 18.040 tons and 7,230 tons bark.

No. 5.—SUMMARY STATEMENT of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
45	Midland and Nova Scotia	57·50	1,884	188	6,187	115	178
46	Montfort and Gatineau Colonization	33·00	4,500	450	9,850	163	
47	Montreal and Atlantic, (formerly South-Eastern) *103·00 / Lake Champlain and St. Lawrence Junction 60·70	163·70	778,388	77,838	1,886,556	38,745	26,919
48	Montreal and Province Line	40·60	6,600	660	38,570	1,102	676
49	Montreal and Vermont Junction	23·60	387,620	38,762	6,077,915	173,649	114,632
50	New Westminster Southern	24·10		111	32,647	926	1,956
51	Nelson and Fort Sheppard	54·70	4,700	465	20,500	410	780
52	New Brunswick and Prince Edward Island	36·00	18,209	1,820	45,000	860	1,540
53	Nosbonsing and Nipissing	5·50					
54	Nova Scotia Steel Company's Ry	12·50	1,558	155	8,100	162	8
55	Orford Mountain	31·00	3,263	326	43,053	912	1,300
56	Ottawa, Northern and Western	59·10	12,601	1,260	49,592	1,300	5,235
57	Ottawa and New York	56 79	7,570	757	41,217	1,257	2,071
58	Philipsburg Ry. and Quarry Co	7·50					
59	Pontiac Pacific Junction	77·70	35,648	3,547	70,624	1,785	9,352
60	Qu'Appelle, Long Lake and Saskatchewan	253·96	10,129	1,013	1,288,100	36,580	16,994
61	Quebec Central	213·50	172,027	17,203	75,020	2,251	39,670
62	Quebec and Lake St. John	241·00	26,588	2,659	88,437	1,769	2,898
63	Quebec, Montmorency and Charlevoix	30·00	6,912	686	18,300	538	52
64	Quebec Southern, (formerly United Counties and East Richelieu Valley Rys. and including South Shore from Oct. 17, 1901) 82·00 / 61·50	143·50	32,650	3,265	46,822	1,414	1,718
65	Red Mountain	9·53	1,700	166	70,150	143	679
66	Rutland and Noyan	5·00					
67	Salisbury and Harvey	45·00	5,096	504	28,764	488	460
68	Shore Line, New Brunswick	82·50	2,795	279	10,814	189	38
69	Stanstead, Shefford and Chambly	43·00	413,420	41,342	6,331,780	180,908	114,784
70	St. Clair Tunnel	2·23					
71	St. Lawrence and Adirondack	32·82	12,130	1,213	30,480	762	400

Freight carried for the Year ended June 30, 1902—*Continued.*

Stock.	Lumber of all kinds except Firewood.	Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.		
71	7,728,997	15,458	549	967	499	2,582	19,880 45	Also running powers over Intercolonial from Jctn. of Midland to Truro Station, ·50 miles.
.....	7,040,000	11,000	885	2,900	975	11,850	27,338 46	For 8 m. only ended June 30, 1902.
8,576	57,935,419	78,315	11,673	17,511	275,325	237,193	733,503 47	*Also 36·6 miles from Sorel to Drum'ondville not in operation.
169	10,273,716	15,426	40	60	9,445	52,683	79,545 48	
28,658	34,082,550	51,175	208	315	176,690	496,267	965,516 49	
176	359,000	539	.....	.....	3,599	2,640	7,991 50	
195	2,085,000	4,170	1,260	2,205	460	*44,502	52,407 51	*Includes 18,885 tons ore and 14,511 tons coke. Also running powers over C. P. R. from Five Mile Point to Nelson, B.C., 4·70 miles.
346	12,085,000	24,170	848	2,120	2,357	15,850	47,523 52	
.....	21,555,000	30,177	.....	.....	.....	.....	30,177 53	
4	6,012,500	7,997	.....	.....	300	*165,983	174,601 54	*Includes 64,000 tons coal, 48,055 tons iron ore, 28,000 tons of pig iron & 24,728 tons limestone.
254	5,582,000	8,370	3,400	5,500	984	6,557	22,903 55	
959	3,804,000	5,707	1,526	2,290	8,501	131	20,448 56	
1,242	5,796,000	7,244	5,768	8,652	5,339	26,871	51,362 57	
.....	12,000	14	32	35	279	*5,926	6,254 58	*Includes 5,414 tons of stone.
1,516	4,010,000	6,029	1,220	1,843	24,830	4,022	43,572 59	Also running powers on Hull Electric Ry., 2·5 miles.
7,082	5,692,126	7,272	1,876	2,815	8,742	1,551	65,055 60	*Includes 117,207 t'ns pulpwood, 29,604 tons asbestos, 11,400 tons pulp, 8,528 tons brick, and 8,872 tons lime. Also running powers on Intercolonial. Harlaka Jct. to Lévis, 5·00 miles.
2,833	66,420,000	99,633	5,738	11,137	10,644	*242,909	386,610 61	
1,425	53,820,000	78,210	30,620	55,116	16,684	69,503	225,366 62	
40	1,092,275	1,087	2,703	2,905	3,367	9,942	18,565 63	
746	8,297,742	12,227	41,156	82,260	16,839	41,050	157,801 64	
265	1,585,000	3,170	2,753	4,179	868	*228,590	237,381 65	*Includes 219,290 tons ore.
.....	.....	.....	.....	.....	.....	.....	66	Operated by Rutland Ry. under operating agreement.
230	19,642,000	19,642	1,820	3,412	614	*12,429	37,319 67	*Includes 10,427 tons plaster.
38	5,312,000	10,624	420	840	6,369	2,123	20,462 68	
28,696	36,364,932	54,602	400	556	186,439	488,909	981,452 69	
.....	.....	.....	.....	.....	.....	.....	70	
200	34,915,333	52,373	982	655	12,978	164,147	232,328 71	Also running powers over Grand Trunk, Valleyfield to Beauharnois, 13·30 mil's, C. Pacific, Adirondack Jct. to Montreal, 8·70 miles.

No. 5.—Summary Statement of Description of

Number.	Name of Railway.	Mileage.	Flour.		Grain.		Live
			Barrels.	Tons.	Bushels.	Tons.	No.
72	St. Mary's River	30·00	590	59	10,400	208	800
73	Sydney and Louisburg (Dominion Coal Co.'s line)	48·96	7,500	750	3,000	75	200
74	South Shore, (formerly Montreal and Sorel)	(61·50)	720	72	4,508	153	132
75	Temiscouata	113·00	18,945	1,895	45,246	905	265
76	Tilsonburg, Lake Erie and Pacific	20·00	4,000	400	23,000	611	9,987
77	Thousand Islands	6·33	2,870	287	8,055	207	1,230
78	Toronto, Hamilton and Buffalo	87·39	47,330	4,733	540,308	12,524	85,166
79	Victoria and Sidney, 16·26 and leased line Victoria Terminal Ry. and Ferry Co., 1·14	17·40	1,471	147	24,717	515	3,406
80	York and Carleton	5·75	1,850	185	8,000	136	11
		18,713·66	18,164,357	1,817,945	203,119,138	5,174,485	4,012,195

Freight carried for the Year ended June 30, 1902—*Concluded.*

Stock.	Lumber of all kinds except Firewood.		Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Tons.	Feet.	Tons.	Cords.	Tons.	Tons.	Tons.	Tons.		
440	2,547,300	3,821	.....	.....	648	*3,663	8,839	72	*Includes 1,629 tons bituminous coal.
63	900,000	1,800	.....	.....	1,000	*3,880,112	3,883,800	73	*Includes 3,000,000 tons of coal, 800,000 tons gravel, sand & stone, 2,000 tons rails, 4,000 tons ore and 4,000 tons pig iron.
15	1,160,978	1,644	52	82	9,335	4,436	15,737	74	For period ending Oct. 17 '01, at which date this Ry. was acquired by the Quebec Southern Ry. Co.
133	47,054,000	70,581	3,354	6,838	5,469	10,479	96,300	75	
1,000	875,310	2,187	750	1,100	550	7,000	12,848	76	
492	2,425,715	4,245	.....	.....	11,724	6,863	23,818	77	
9,110	4,379,475	6,084	4,032	9,224	49,130	562,597	653,402	78	Also running powers on Hamilton and Dundas, Hamilton to Dundas, 3·67 m.
341	604,700	1,058	5,519	11,038	1,905	8,251	23,255	79	
2	1,700,850	2,550	140	210	100	400	3,583	80	
909,036	3,619,280,532	5,414,396	963,742	1,578,047	6,168,420	21,314,198	42,376,527		

No. 6.—Summary Statement of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.	Freight Traffic.	Mails and Express Freight.
			$ cts.	$ cts.	$ cts.
1	Alberta Railway and Coal Co	64·62	14,894 48	51,992 71	1,023 41
2	Algoma Central and Hudson Bay	70·50	45,817 68	387,093 59	557 14
3	Atlantic and Lake Superior, comprising—				
	Baie des Chaleurs *98·00				
	Great Eastern, 23 miles not under traffic	98·00	14,491 56	23,773 15	5,140 36
	Ottawa Valley, 7 " "				
4	Bay of Quinte Ry. and Navigation Co. 4·00				
	Kingston, Napanee and Western 60·82	64 82	26,846 46	179,353 82	8,520 97
5	Bedlington and Nelson	15·20	2,147 94	30,256 85	35 25
6	British Yukon	90.32	88,299 04	325,033 13	6,013 09
7	Brockville, Westport and Sault Ste. Marie	45·00	16,733 05	19,393 87	2,772 25
8	Buctouche and Moncton	32·00	4,785 33	12,636 69	.....
9	Calgary and Edmonton	295·93	169,996 19	364,689 38	12,245 74
10	Canada Atlantic, including Ottawa, Arnprior				
	and Parry Sound 400·30				
	Leased, Central Counties 37·40	458·60	316,030 89	1,404,842 68	29,466 80
	Pembroke Southern 20·90				
11	Canada Coal and Railway Co., formerly Joggins	12·00	3,146 45	22,450 69	562 66
12	Canada Eastern	136·00	32,948 04	77,964 89	3,981 46
13	Canada Southern 359·24				
	Leased, Sarnia, Chatham and Erie 7·00	382·19	1,377,756 11	3,524,167 10	275,014 04
	Leamington and St. Clair 15·95				
14	Canadian Northern, comprising Lake Manitoba Ry. and Canal Co.'s line, Winnipeg Great Northern Ry., Manitoba South-eastern Ry., Ontario and Rainy River Ry. and Port Arthur, Duluth and Western Ry. 892·62	1,248·20	262,174 06	1,101,658 04	23,823 76
	Lines operated by Canadian Northern—				
	Northern Pacific and Manitoba 320·51				
	Portage and North-western 35·07				
15	Canadian Government Railways—				
	Intercolonial	1,301·94	1,770,941 13	3,644,513 42	255,931 36
	Prince Edward Island	209·00	85,086 44	96,577 79	15,914 70
16	Canadian Pacific 4,582·50				
	Leased lines—				
	Fredericton 22·10				
	New Brunswick 175·00				
	New Brunswick and Canada 117·20				
	St. John and Maine 92·10				
	St. John Bridge & Ry. Extension 2·00				
	St. Stephen and Milltown 4·60				
	Tobique Valley 28·00				
	Cap de la Madeleine *3·00				
	Montreal and Lake Maskinonge *12·90				
	Atlantic and North-west 201·00				
	Montreal and Ottawa 93·20				
	Ontario and Quebec 473·00				
	St. Lawrence and Ottawa 58.40	7,321·00	9,236,114 89	23,737,456 24	1,353,254 15
	Credit Valley 175·70				
	Guelph Junction 15·00				
	Toronto, Hamilton and Buffalo 2·70				
	Toronto, Grey and Bruce 191·10				
	West Ontario Pacific 26·60				
	Manitoba and North-western 252·40				
	Manitoba South-western Colonization 214·40				
	Columbia and Kootenay 60·50				
	Nakusp and Slocan 36·30				
	Shuswap and Okanagan 50·80				
	Columbia and Western 157·10				
	Great North-west Central 71·00				
	British Columbia Southern 202·40				

for the Year ended June 30, 1902.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	p. c.	Cts.		
72,125 12	140,035 72	38,551 26	138	284·68	1	
36,513 49	469,981 90	212,661 20	183	567·86	2	
....	43,405 07	– 1,365 04	97	66·78	3	*Also 2 miles from New Carlisle to Paspebiac not in operation.
5,219 42	219,940 67	107,789 75	196	161·72	4	
70 22	32,510 26	13,316 60	169	461·53	5	Also running powers over C.P.R. from
9,579 33	428,924 59	222,427 33	208	527·58	6	Creston Jct. to Sirdar Jct., 8·70 miles.
333 11	39,232 28	6,115 81	118	116·52	7	
914 12	18,336 14	– 1,098 99	94	90·95	8	
894 86	547,826 17	274,781 18	201	194·45	9	
66,606 10	1,816,946 47	569,021 07	146	127·12	10	
385 66	26,545 46	13,371 66	202	132·73	11	
1,739 30	116,633 69	– 9,115 62	93	68·70	12	
14,558 16	5,191,495 41	519,698 77	111	110 05	13	
13,314 57	1,400,970 43	463,204 82	149	195·05	14	
.....	5,671,385 91	96,822 61	102	93·46	15	Also running powers over Grand Trunk—
421 00	197,999 93	– 72,160 04	73	72·46		Point Lévis to Hadlow. ..... 1·50 Chaudière Curve to Chaudière... 1·18 St. Rosalie Junction to Montreal. 37·62 Total, Miles..... 40·30
						*2 32 miles returned by company. *1·90 miles not in operation.
2,540,049 86	36,866,875 14	14,043,674 75	162	179·80	16	Also running powers over— C.A.R., Montreal and Ottawa Junction to Ottawa..... 0·80 G.T.R., Toronto to Hamilton Junction..... 35·20 Total, Miles..... 36·00

No. 6.—Summary Statement of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.	Freight Traffic.	Mails and Express Freight.
			$ cts.	$ cts.	$ cts.
17	Caraquet	68·00	5,904 12	23,815 86	1,962 20
18	Carillon and Grenville	13·00	1,719 05	97 65	
19	Central Ontario 125·00 Marmora Ry. and Mining Co., formerly Ontario, Belmont & Northern 9·60	134·60	42,854 30	127,309 07	10,434 64
20	Central of New Brunswick	45·66	2,204 56	3,259 31	1,221 74
21	Central of Nova Scotia, formerly Nova Scotia Central	74·00	29,063 69	26,374 54	3,813 17
22	Cumberland Railway and Coal Co.'s line	32·00	11,477 39	16,406 91	3,047 34
23	Dominion Atlantic, comprising— Windsor and Annapolis 87·50 Cornwallis Valley 14·00 Yarmouth and Annapolis (Western Counties) 87·00 Windsor Branch, leased from Intercolonial 32·00	220·50	599,420 49	372,722 21	72,832 61
24	Elgin and Havelock	28·00	1,172 29	6,171 23	549 65
25	Esquimalt and Nanaimo	78·00	96,903 43	109,598 96	3,604 23
26	Fredericton and St. Mary's Ry. Bridge	1·33	998 82	3,297 45	
27	Grand Trunk 880·35 Wharf Branch, Montreal 3·44 Great Western 562·30 Brantford, Norfolk and Port Burwell 34·39 Buffalo and Lake Huron 162·00 Grand Trunk, Georgian Bay and Lake Erie 173·00 Owen Sound Branch 12·42 London, Huron and Bruce 68·00 Waterloo Junction 10·25 South Norfolk 17·00 Wellington, Grey and Bruce 168·13 Northern 172·10 North Simcoe 33·00 Hamilton and North-western 173·00 Northern Pacific Junction 111·37 Toronto Belt Line 12·79 Midland 166·00 Grand Junction 85·21 Toronto and Nipissing 85·00 Lake Simcoe Junction 26·00 Victoria 53·00 Whitby, Port Perry and Lindsay 46·00 Jacques Cartier Union 6·50 Montreal and Champlain Junction 61·73 Beauharnois Junction 19·50	3,142·48	6,515,693 67	13,986,661 74	1,031,379 20
28	Great Northern Railway of Canada, including Lower Laurentian	175·10	77,920 72	430,725 44	3,900 85
29	Gulf Shore	16·78	336 20	5,275 99	
30	Halifax and Yarmouth, formerly Coast Line of Nova Scotia	30·80	15,363 83	7,716 26	1,974 67
31	Hampton and St. Martins	29·00	2,510 53	4,352 10	18 36
32	Hereford	53·30	12,148 92	38,354 62	1,304 88
33	Inverness Railway and Coal Co., formerly Inverness and Richmond	61·00	14,784 30	25,605 29	
34	Irondale, Bancroft and Ottawa	48·00	4,398 60	10,141 90	943 35
35	Kaslo and Slocan	31·80	10,928 83	42,695 83	1,779 05
36	Kent Northern St. Louis and Richibucto	27·00 7·09	4,064 50	7,487 08	932 64
37	Kingston and Pembroke	112·85	35,502 31	112,275 48	9,138 03
38	L'Assomption	3·33	1,016 13	393 15	
39	Lake Erie and Detroit River, including Erie and Huron 198·35 Leased, London and Port Stanley 24·00	222·35	196,084 07	370,832 26	19,691 83

SESSIONAL PAPER No. 20

for the Year ended June 30, 1902—*Continued.*

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	p. c.	Cts.		
555 59	32,237 77	806 45	103	56·10	17	
.....	1,816 70	– 1,326 69	58	28·84	18	
3,393 16	183,991 17	57,721 05	146	146·90	19	
646 76	7,332 37	– 29,394 72	20	63·90	20	
1,786 92	61,038 32	18,025 44	142	122·58	21	Also running powers over Dominion Atlantic Railway, Middleton Junction to Middleton, 0·33 miles.
92,232 54	123,164 18	43,905 07	155	175·49	22	
... ...	1,044,975 31	255,419 95	132	193·82	23	Also running powers over Intercolonial Railway, Halifax to Windsor Junction, 14·00 miles.
18 75	7,911 92	– 2,608 31	75	53·47	24	
33,527 68	243,634 30	15,153 29	107	107·10	25	
500 00	4,796 27	2,546 97	213	.....	26	Also running privileges over Canada Eastern Ry., 0·17 miles. The earnings are receipts from tolls on trains run across the bridge by the Canada Eastern and Canadian Pacific Rys.
678,088 19	22,211,813 80	7,814,120 99	154	143·50	27	Also running powers over Chaudière Branch of Intercolonial Ry., 5·77 miles.
12,216 50	524,763 51	207,962 82	166	128·82	28	Also running powers over Quebec & Lake St. John Ry., from Quebec to Rivière a Pierre, 56·50 miles.
....	5,612 19	4,083 15	367	107·90	29	
839 20	25,893 96	6,119 37	131	56·41	30	Also 19·30 miles not in operation.
394 94	7,275 93	– 2,562 12	74	57·75	31	
22 46	51,830 88	– 37,771 75	58	86·38	32	
433 63	40,823 22	– 1,499 99	96	74·99	33	
... .	15,483 85	– 1,461 31	91	51·22	34	
66 42	55,470 13	11,744 56	127	234·05	35	
... .	12,484 22	5,484 22	178	69·36	36	
.....	.....	.....	.....	.....		Not operated.
9,377 94	166,293 76	27,356 63	120	117·93	37	
. .....	1,409 28	– 100 14	93	21·76	38	
29,202 58	615,810 74	183,813 82	143	98·69	39	

No. 6.—Summary Statement of Earnings

Number.	Name of Railway.	Mileage.	Passenger Traffic.	Freight Traffic.	Mails and Express Freight.
			$ cts.	$ cts.	$ cts.
40	Lenora Mount Sicker	11·50	219 35	2,780 00	
41	Liverpool and Milton	5·00	1,193 90	8,237 98	
42	Lotbinière and Mégantic	30 34	2,841 57	14,011 03	
43	Manitoulin and North Shore	16·00	3,083 40	45,522 99	
44	Massawippi Valley	35·46	53,195 02	83,116 82	2,971 86
45	Midland of Nova Scotia	57·50	10,850 73	12,768 17	34 20
46	Montfort and Gatineau Colonization	33·00	5,509 85	14,320 75	570 76
47	Montreal and Atlantic, formerly South-Eastern 103·00; Lake Champlain and St. Lawrence Junction 60·70	163·70	118,971 88	267,729 41	11,621 40
48	Montreal and Province Line	40·69	30,514 41	40,190 78	3,259 53
49	Montreal and Vermont Junction	23·60	54,965 16	123,449 23	5,080 00
50	New Westminster Southern	24·10	10,029 18	4,098 07	2,419 31
51	Nelson and Fort Sheppard	54·70	43,959 20	93,433 56	2,476 84
52	New Brunswick and Prince Edward Island	36·00	7,336 81	17,501 26	1,588 07
53	Nosbonsing and Nipissing	5·50		53,850 00	
54	Nova Scotia Steel Co.'s Railway	12·50	1,229 55	9,370 52	
55	Orford Mountain	31·00	2,370 86	15,689 78	590 05
56	Ottawa, Northern and Western	59·10	40,474 43	36,377 86	3,605 20
57	Ottawa and New York	56·79	50,563 94	33,223 76	2,761 99
58	Philipsburg Railway and Quarry Co.	7·50	2 60	1,576 05	
59	Pontiac Pacific Junction	77·70	29,471 55	33,697 37	4,035 60
60	Qu'Appelle, Long Lake and Saskatchewan	253·96	50,379 69	140,581 84	3,601 43
61	Quebec Central	213·50	207,635 55	398,530 05	18,849 92
32	Quebec and Lake St. John	241·00	116,360 24	224,392 93	12,912 13
63	Quebec, Montmorency and Charlevoix, now Quebec Railway, Light and Power Co	30·00	*60,063 48 22,997 90	16,537 43	*562 53 614 35
64	Quebec Southern, formerly United Counties and East Richelieu Valley Rys. 82·00; Including South Shore from Oct. 17, 1901 61·50	143·50	60,713 90	84,971 29	4,454 14
65	Red Mountain	9·53	11,782 28	67,993 15	1,009 32
66	Rutland and Noyan	5·00			
67	Salisbury and Harvey	45·00	7,292 01	16,308 65	2,535 22
68	Shore Line, New Brunswick	82·50	11,952 85	20,204 17	3,190 76
69	Stanstead, Shefford and Chambly	43·00	22,242 06	48,498 07	2,757 51
70	St. Clair Tunnel	2·23	38,826 49	168,980 60	
71	St. Lawrence and Adirondack	32·82	95,589 83	102,636 19	4,991 11
72	St. Mary's River	30·00	3,089 43	11,009 43	205 47
73	Sydney and Louisburg (Dominion Coal Co.'s Ry.)	48·96	57,316 86	587,223 75	819 25
74	South Shore, formerly Montreal and Sorel (61·50)		14,089 95	3,252 88	773 98
75	Témiscouata	113·00	30,011 49	87,493 97	
76	Tilsonburg, Lake Erie and Pacific	20·00	4,480 15	8,001 94	1,287 08
77	Thousand Islands	6·33	6,168 63	19,747 66	2,654 46
78	Toronto, Hamilton and Buffalo	87·39	149,272 65	320,098 58	7,892 24
79	Victoria and Sydney, B.C. 16·26; Leased line, Victoria Terminal Railway and Ferry 1·14	17·40	11,961 88	11,699 99	400 64
80	York and Carleton	5·75	400 00	2,139 80	
	Total	18,713·66	22,600,090 60	53,986,672 13	3,273,302 93

for the Year ended June 30, 1902—*Concluded.*

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Train Mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	p. c.	Cts.		
.....	2,999 35	– 12,742 88	19	22·83	40	
.....	9,431 88	4,562 18	194	110·96	41	
90 84	16,943 44	1,139 46	107	92·99	42	
70 17	48,676 56	28,025 71	236	394·59	43	
.....	139,283 70	29,181 11	126	85·93	44	Also running powers over G.T.R. from Lennoxville to Sherbrooke, 2·95 miles.
.....	23,653 10	4,028 68	121	69·36	45	For 8 mos. only, ended June 30, 1902.
425 42	20,826 78	– 2,057 57	91	39·82	46	Also running powers over I.C.R. from Junction of Midland to Truro Station-0·50 miles.
11,121 00	409,443 69	7,143 26	102	112·93	47	Also 36·6 miles from Sorel to Drummondville, not in operation.
2,000 00	75,964 72	1,137 48	102	106·09	48	
250 00	183,744 39	36,800 52	125	102·91	49	
266 18	16,812 74	– 17,420 90	49	55·69	50	
1,288 84	141,158 44	25,859 85	122	232·06	51	Also running powers over C.P.R. from Five Mile Point to Nelson, B.C., 4·7 miles.
91 45	26,517 59	3,641 98	116	62·32	52	
.....	53,850 00	8,771 77	119	404·89	53	
5,400 00	16,000 67	– 3,176 30	83	106·67	54	
218 00	18,868 69	715 41	104	68·39	55	
3,685 74	84,143 23	18,886 61	129	176·25	56	
368 21	86,917 90	3,978 83	105	75·86	57	
5,579 23	7,157 28	4,660 98	287	513·43	58	
2,130 31	69,334 83	6,340 61	110	125·20	59	Also running powers over Hull Electric Railway, 2·5 miles.
423 98	194,986 94	57,416 18	142	209 82	60	
3,225 04	628,240 56	193,299 37	144	107·04	61	Also running powers over I.C.R., Harlaka Junction to Lévis, 5·00 miles.
34,937 95	388,603 25	73,004 74	120	115·89	62	
*1,079 03	*61,705 04	*27,740 87	*182	40·96	63	* Electric.
1,080 00	41,229 68	10,010 75	132	90·99		
13,946 56	164,085 89	– 77,874 62	68	72·23	64	
1,617 10	82,401 85	21,027 26	134	495·14	65	
.....	.....	.....	....	.....	66	Operated by Rutland Ry. under an operating agreement.
200 19	26,336 07	– 9,735 75	73	87·17	67	
308 85	35,656 63	– 13,224 64	73	62·43	68	
350 00	73,847 64	9,123 50	114	93·53	69	
788 46	208,595 55	107,407 29	206	....	70	The earnings of the company are from rents and tolls on vehicles hauled through the tunnel.
166 54	203,383 67	79,788 70	165	104·07	71	Also running powers over—
137 78	14,442 11	4,033 89	139	117·46	72	G.T.R., Valleyfield to Beauharnois..... 13·30
41,850 84	687,210 70	387,265 73	229	226·80	73	C.P.R., Adirondack Junction to Montreal ..... 8·70
						Total, Miles ..... 22·00
975 50	19,092 31	– 7,354 81	72	63·72	74	For period ending Oct. 17, 1901, at which
8,522 05	126,027 51	17,300 49	116	132·45	75	date this railway was acquired by the
.....	13,769 17	2,653 17	124	34·40	76	Quebec Southern Ry. Co.
3,505 71	32,076 46	10,557 95	149	82·06	77	
34,309 10	511,572 57	204,322 66	167	171·33	78	Also running powers over Hamilton and Dundas Ry. from Hamilton to Dundas, 3·67 miles.
.....	24,062 51	1,466 85	106	92·87	79	
.....	2,539 80	– 31 20	99	362·83	80	
3,806,437 65	83,666,503 31	26,322,911 04				

No. 7.—Summary Statement of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.	Working and Repairs of Engines.
			$ cts.	$ cts.
1	Alberta Railway and Coal Co.	64·62	31,423 00	13,820 94
2	Algoma Central and Hudson Bay	70·50	30,466 77	59,577 75
3	Atlantic and Lake Superior, comprising—			
	Baie des Chaleurs *98·00			
	Great Eastern, 23 miles not under traffic	98·00	13,078 33	16,090 74
	Ottawa Valley, 7 " "			
4	Bay of Quinté Railway and Navigation Co. 4·00			
	Kingston, Napanee and Western 60·82	64·82	26,950 83	39,559 58
5	Bedlington and Nelson	15·20	5,831 11	3,497 89
6	British Yukon	90·32	91,382 14	26,703 14
7	Brockville, Westport and Sault Ste. Marie	45·00	12,879 98	7,671 61
8	Buctouche and Moncton	32·00	6,024 91	6,484 42
9	Calgary and Edmonton	295·93	130,875 47	70,808 52
10	Canada Atlantic, including Ottawa, Arnprior and Parry Sound 400·30			
	Leased: Central Counties 37·40			
	Pembroke Southern 20·90	458·60	210,955 42	499,400 85
11	Canada Coals and Railway Co., formerly Joggins	12·00	5,319 10	4,745 95
12	Canada Eastern	136·00	47,962 76	47,571 11
13	Canada Southern 359·24			
	Leased: Sarnia, Chatham and Erie 7·00			
	Leamington and St. Clair 15·95	382·19	745,726 83	1,361,507 24
14	Canadian Northern, comprising Lake Manitoba Ry. and Canal Co's line, Winnipeg Great Northern Ry., Manitoba South-eastern Ry., Ontario and Rainy River Ry., and Port Arthur, Duluth and Western Ry 892·62			
	Lines operated by Canadian Northern, Northern Pacific and Manitoba 320·51			
	Portage and North-western 35·07	1,248·20	196,516 70	320,629 50
15	Canadian Government Railways—			
	Intercolonial	1,301 94	1,155,891 66	2,030,928 40
	Prince Edward Island	209 00	99,080 81	76,193 20
16	Canadian Pacific 4,582·50			
	Leased lines—			
	Fredericton 22·10			
	New Brunswick 175·00			
	New Brunswick and Canada 117·20			
	St. John and Maine 92·10			
	St. John Bridge and Railway Extension 2·00			
	St. Stephen and Milltown 4·60			
	Tobique Valley 28·00			
	Cap de la Madeleine †3·00			
	Montreal and Lake Maskinongé ‡12·90			
	Atlantic and North-west 201·00			
	Montreal and Ottawa 93·20			
	Ontario and Quebec 473·00	7,321 00	5,411,130 82	7,276,972 79
	St. Lawrence and Ottawa 58·40			
	Credit Valley 175·70			
	Guelph Junction 15·00			
	Toronto, Hamilton and Buffalo 2·70			
	Toronto, Grey and Bruce 191·10			
	West Ontario Pacific 26·60			
	Manitoba and North-western 252·40			
	Manitoba South-western Colonization 214·40			
	Columbia and Kootenay 60 50			
	Nakusp and Slocan 36·30			
	Shuswap and Okanagan 50·80			
	Columbia and Western 157·10			
	Great North-west Central 71·00			
	British Columbia Southern 202·40			
	Caraquet	68·00	9,318 85	13,588 65
	Carillon and Grenville	13·00	1,150 00	1,770 00

SESSIONAL PAPER No. 20

Expenses for the Year ended June 30, 1902.

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	Cents.		
1,354 36	54,886 16	101,484 46	206·30	1	
28,485 56	138,790 62	257,320 70	310·90	2	
3,149 67	12,451 37	44,770 11	68·88	3	*Also 2 miles from New Carlisle to Paspebiac, not in operation.
12,171 20	33,469 31	112,150 92	82·46	4	
593 70	9,270 96	19,193 66	272·48	5	Also running powers on Canadian
6,881 69	81,530 29	206,497 26	253·99	6	Pacific, from Creston Jct. to Sirdar
2,884 28	9,680 60	33,116 47	98·35	7	Jct., 8·70 miles ....
1,039 77	5,886 03	19,435 13	96·40	8	
11,400 80	59,960 20	273,044 99	96·92	9	
103,350 48	434,218 65	1,247,925 40	87·31	10	
539 59	2,569 16	13,173 80	65·86	11	
5,300 71	24,914 73	125,749 31	74·07	12	
448,956 10	2,115,606 47	4,671,796 64	122·66	13	
159,158 50	261,460 91	937,765 61	130·56	14	
630,490 65	1,757,252 59	5,574,563 30	91·87	15	Also running powers over G'd Trunk—
17,733 13	77,152 83	270,159 97	98·87		Pt. Lévis to Hadlow..... 1·50
					Chaudière Curve to Chaudière. 1·18
					St. Rosalie Jct. to Montreal..37·62
					40·30
					†2·32 miles returned by Company.
					‡1·90 miles not in operation.
1,591,369 77	8,543,727 01	22,823,200 39	111·31	16	Also running powers over—
					Canada Atlantic Ry., Montreal and Ottawa Jct. to Ottawa.. 0·80
					Grand Trunk Ry., Toronto to Hamilton Jct .....35·20
					36·00
675 25	7,848 57	31,431 32	54·70	17	
200 00	23 39	3,143 39	49·90	18	

No. 7.—Summary Statement of Operating Expenses

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.	Working and Repairs of Engines.
			$ cts.	$ cts.
19	Central Ontario 125·00 Marmora Ry. and Mining Co., formerly Irondale, Bancroft and Ottawa 9·60	134·60	49,328 53	40,430 73
20	Central of New Brunswick	45·66	22,790 35	4,701 40
21	Central of Nova Scotia (formerly Nova Scotia Central)	74·00	18,480 45	11,672 98
22	Cumberland Railway and Coal Company	32·00	27,034 59	23,566 67
23	Dominion Atlantic, comprising— Windsor and Annapolis 87·50 Cornwallis Valley 14·00 Yarmouth and Annapolis (Western Counties) 87·00 Windsor Branch, leased from Intercolonial 32·00	220·50	150,378 24	312,522 49
24	Elgin and Havelock	28·00	4,207 50	3,233 78
25	Esquimalt and Nanaimo	78·00	73,790 27	42,004 37
26	Fredericton and St. Mary's Railway Bridge Co.	1·33	2,249 30	.....
27	Grand Trunk 880·35 Wharf Branch, Montreal 3·44 Great Western 562·30 Brantford, Norfolk and Port Burwell 34·39 Buffalo and Lake Huron 162·00 Grand Trunk, Georgian Bay and Lake Erie 173·00 Owen Sound Branch 12·42 London, Huron & Bruce 68·00 Waterloo Junction 10·25 South Norfolk 17·00 Wellington, Grey and Bruce 168·13 Northern 172·10 North Simcoe 33·00 Hamilton and North-western 173·00 Northern Pacific Junction 111·37 Toronto Belt Line 12·79 Midland 166·00 Grand Junction 85·21 Toronto and Nipissing 85·00 Lake Simcoe Junction 26·00 Victoria 53·00 Whitby, Port Perry and Lindsay 46·00 Jacques Cartier Union 6·50 Montreal and Champlain Junction 61·73 Beauharnois Junction 19·50	883·79 3,142·48	3,170,330 33	4,993,592 82
28	Great Northern Ry. of Canada including Lower Laurentian	175·10	58,735 89	137,924 34
29	Gulf Shore	16·78	621 17	427 20
30	Halifax and Yarmouth (formerly Coast Line of Nova Scotia)	30·80	4,522 28	8,459 95
31	Hampton and St. Martins	29·00	4,187 67	3,011 70
32	Hereford	53·30	36,208 34	24,260 00
33	Inverness Ry. and Coal Co., formerly Inverness and Richmond	61·00	11,656 82	11,673 64
34	Irondale, Bancroft and Ottawa	48·00	4,162 49	6,006 95
35	Kaslo and Slocan	31·80	18,849 04	8,268 93
36	Kent Northern	27·00	1,335 00	3,040 00
	St. Louis and Richibucto	7·00	.....	.....
37	Kingston and Pembroke	112·85	42,642 63	40,471 83
38	L'Assomption	3·33	.....	923 80
39	Lake Erie and Detroit River, including Erie and Huron 198·35 Leased lines—London and Port Stanley 24·00	222·35	70,512 52	168,737 51
40	Lenora Mount Sicker	11·50	4,722 66	4,935 55
41	Liverpool and Milton	5·00	1,692 42	1,818 97
42	Lotbinière and Mégantic	30·34	5,416 85	4,235 40
43	Manitoulin and North Shore	16·00	3,198 76	9,737 24
44	Massawippi Valley	35·46	26,850 97	46,530 87

for the Year ended June 30, 1902—*Continued.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	Cents.		
7,932 92	28,577 94	126,270 12	100·81	19	
688 81	8,546 53	36,727 09	320·06	20	
1,970 69	10,888 76	43,012 88	86·38	21	Also running powers over Dominion Atlantic Ry., Middleton Jct. to Middleton, 0·33 miles.
7,860 26	20,797 59	79,259 11	112·93	22	
17,472 95	309,181 68	789,555 36	146·44	23	Also running powers over I.C.Ry., Halifax to Windsor Jct., 14 miles.
.....	3,078 95	10,520 23	71·10	24	
10,066 98	102,619 39	228,481 01	100·43	25	
....	.....	2,249 30	.....	26	Also running privileges over Canada Eastern Ry., 0 17 miles.
1,798,727 20	4,435,042 46	14,397,692 81	93·02	27	Also running powers over Chaudière Branch of I.C.R., 5·77 miles.
31,734 37	88,406 09	316,800 69	77·77	28	Also running powers over Quebec and Lake St. John Ry. from Quebec to
.. ..	480 67	1,529 04	29·39	29	River à Pierre, 56·50 miles.
383 76	6,408 60	19,774 59	43 08	30	Also 19·30 miles not in operation.
190 31	2,448 37	9,838 05	78·08	31	
10,043 95	19,090 34	89,602 63	149·32	32	
684 48	18,308 27	42,323 21	98·48	33	
673 74	6,101 98	16,945 16	56·06	34	
2,378 62	14,228 98	43,725 57	184·50	35	
175 00	2,450 00	7,000 00	38·89	36	
... .	....	....	.....	...	Not operated.
5,151 01	50,671 66	138,937 13	98·53	37	
10 00	575 62	1,509 42	23·31	38	
23,899 95	168,846 94	431,996 92	69·24	39	
1,463 12	4,620 90	15,742 23	119·80	40	
52 00	1,306 31	4,869 70	57·29	41	
781 21	5,370 52	15,803 98	86·74	42	
1,063 29	6,651 56	20,650 85	167·40	43	
7,530 C5	29,190 70	110,102 59	67·92	44	Also running powers over G. T. Ry. from Lennoxville to Sherbrooke, 2·95 miles.

No. 7.—Summary Statement of Operating

Number.	Name of Railway.	Mileage.	Maintenance of Line, Buildings, &c.	Working and Repairs of Engines.
			$ cts.	$ cts.
45	Midland of Nova Scotia	57·50	6,780 97	5,046 54
46	Montfort and Gatineau Colonization	33·00	7,828 47	8,453 52
47	Montreal and Atlantic, formerly South Eastern. (103·00) Lake Champlain and St. Lawrence Junction (60·70)	163·70	120,373 16	140,252 14
48	Montreal and Province Line	40·60	28,889 73	16,371 58
49	Montreal and Vermont Junction	23·60	20,235 15	42,180 20
50	New Westminster Southern	24·10	10,373 86	8,125 62
51	Nelson and Fort Sheppard	54·70	40,215 48	29,765 51
52	New Brunswick and Prince Edward Island	36·00	10,396 00	7,560 27
53	Nosbonsing and Nipissing	5·50	14,735 00	2,720 00
54	Nova Scotia Steel and Coal Co.'s Ry	12·50	5,146 47	9,097 95
55	Orford Mountain	31·00	6,223 01	7,368 78
56	Ottawa, Northern and Western	59·10	22,560 70	11,535 97
57	Ottawa and New York	56·79	15,429 20	22,627 62
58	Philipsburg Ry. and Quarry Co	7·50	990 10	391 08
59	Pontiac Pacific Junction	77·70	22,047 99	15,351 71
60	Qu'Appelle, Long Lake and Saskatchewan	253·96	80,510 08	32,842 44
61	Quebec Central	213·50	114,710 31	134,705 43
62	Quebec and Lake St. John	241·00	55,048 44	135,081 34
63	Quebec, Montmorency and Charlevoix, now Quebec Ry., Light and Power Co	30·00	‡9,584 81 5,847 90	‡5,246 24 12,655 65
64	Quebec Southern formerly United Counties and East Richelieu Valley Rys. (82·00) And including South Shore from Oct. 17, 1901 (61·50)	143·50	38,632 58	54,883 32
65	Red Mountain	9·53	20,414 21	19,649 00
66	Rutland and Noyan	5·00	.....	.....
67	Salisbury and Harvey	45·00	21,847 41	8,277 08
68	Shore Line, New Brunswick	82·50	21,228 59	13,500 34
69	Stanstead, Shefford and Chambly	43·00	16,611 38	23,815 44
70	St. Clair Tunnel	2 23	8,851 90	62,890 39
71	St. Lawrence and Adirondack	32 82	33,724 74	36,774 75
72	St. Mary's River	30 00	5,365 15	2,212 70
73	Sydney and Louisburg (Dominion Coal Co)	48·96	44.303 84	99,890 26
74	South Shore, formerly Montreal and Sorel (61·50)	.....	3,439 16	7,464 56
75	Témiscouata	113·00	37,072 55	33,504 29
76	Tilsonburg, Lake Erie and Pacific	20·00	2,909 00	4,695 00
77	Thousand Islands	6·33	2,418 00	7,819 42
78	Toronto, Hamilton and Buffalo	87·39	53,508 83	82,539 14
79	Victoria and Sydney, B.C. (16·26) Leased line Victoria Terminal Ry. and Ferry Co. 1·14	17 40	5,425 17	7,677 82
80	York and Carleton	5·75	25 00	1,680 00
		18,713·66	12,959,574 90	18,904,364 50

Expenses for the Year ended June 30, 1902—*Concluded.*

Working and Repairs of Cars.	General Operating Expenses.	Total.	Cost of operating per train mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	Cents.		
1,173 76	6,623 15	19,624 42	57·54	45	For 8 months only ended June 30, '02. Also running powers over Intercolonial from Junction of Midland to Truro Station, 0·50 miles.
....	6,602 36	22,884 35	43·76	46	
18,256 31	123,418 82	402,300 43	110·96	47	Also 36·6 miles from Sorel to Drummondville not in operation.
8,081 53	21,484 40	74,827 24	104·50	48	
31,840 06	52,688 46	146,943 87	82·30	49	
1,096 18	14,637 98	34,233 64	113·40	50	
8,475 07	36,842 53	115,298 59	189·55	51	Also running powers over Canadian Pacific Ry. from Five Mile point to Nelson, B.C., 4·70 miles.
1,039 15	3,880 19	22,875 61	53 76	52	
3,313 00	24,310 23	45,078 23	338·93	53	
208 56	4,723 39	19,176 37	127·84	54	
310 08	4,251 41	18,153 28	65 80	55	
3,333 37	27,826 58	65,256 62	136·69	56	
1,639 94	43,242 31	82,939 07	72·39	57	
....	1,115 12	2,496 30	179·07	58	
5,285 98	20,308 54	62,994 22	113·75	59	Also running powers over Hull Electric Ry., 2·5 miles.
4,482 36	19,735 88	137,570 76	148·03	60	
28,319 49	157,205 96	434,941 19	74·11	61	Also running powers over Intercolonial Ry., Harlaka Jct. to Lévis, 5 miles.
17,652 92	107,815 81	315,598 51	94·13	62	
‡6,622 24	‡12,510 88	‡33,964 17	22·54	63	‡ Electric.
3,961 86	8,753 52	31,218 93	68·90	63	
8,098 87	140,345 74	*241,960 51	106·51	64	*Includes $81,718.52 for extraordinary expenses, permanent improvements, equipment and betterments, &c.
1,549 21	19,762 17	61,374 59	368·80	65	
....	....	....	.....	66	Operated by Rutland Ry. under operating agreement.
1,364 66	4,582 67	36,071 82	119·39	67	
2,416 46	11,735 88	48,881 27	85·58	68	
6,218 57	18,078 75	64,724 14	81 98	69	
858 93	28,587 04	101,188 26	....	70	
4,184 94	18,910 54	123,594 97	63·24	71	Also running powers over G. T. R., Valleyfield to Beauharnois, 13 30 miles, C. P. R., Adirondack Jct. to Montreal, 8·70 miles.
76 37	2,754 00	10,408 22	84·65	72	
57,115 84	98,635 03	299,944 97	98·99	73	
735 91	14,807 49	26,447 12	88·27	74	For period ending Oct. 17, 1901, at which date this railway was acquired by the Quebec Southern Ry. Co.
7,721 24	30,428 94	108,727 02	113·82	75	
50 00	3,462 00	11,116 00	27·79	76	
559 05	10,722 04	21,518 51	55·05	77	
11,466 77	159,735 17	307,249 91	102·90	78	Also running powers over Hamilton and Dundas Ry., from Hamilton to Dundas, 3·67 miles.
597 94	8,894 73	22,595 66	87·21	79	
175 00	691 00	2,571 00	367·29	80	
5,204,951 50	20,274,701 37	57,343,592 27			

No. 8.—Summary of Accidents for the

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or Engines when in motion.		At work on or near Track making up Trains.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1	Algoma Central & Hudson Bay	70·50	Employees	....	....	....	2	1	.....
			Others	....	....	....	....	....	.....
2	Atlantic & Lake Superior	98·00	Employees	....	....	....	..	....	.....
3	Bay of Quinté	64·82	Passengers	....	....	....	1	....	....
4	British Yukon	90·32	Employees	....	....	....	....	....	....
			Others	....	....	..	....	....	.. .
5	Brockville Westport & Sault Ste. Marie	45·00	Employees	....	....	1	....	....	....
6	Calgary & Edmonton	295·93	Employees	....	....	....	....	....	....
7	Canada Atlantic	458·60	Passengers	....	....	....	1	....	.....
			Employees	....	1	....	3	....	....
			Others	1	....	....	....	....	.....
8	Canada Southern	382·19	Passengers	....	....	....	1	....	.....
			Employees	....	4	1	....	....	.....
			Others	....	....	....	3	....	. .
9	Canadian Northern	1,248·20	Employees	1	....	....	....	....	.....
			Others	....	..	..	..	....	.....
	Canadian Government Railways:								
10	Intercolonial	1,301·94	Passengers	1	3	1	4	....	.....
			Employees	2	13	2	7	3	19
			Others	1	1	2	3	....	.. ..
11	Prince Edward Island	209·00	Passengers	....	.. .	.. .	....	....	.....
			Employees	....	1	....	....	...	2
			Others	....	....	....	1	....	.....
12	Canadian Pacific: owned and leased lines	7,321·00	Passengers	2	7	2	12	....	.. ...
			Employees	8	70	2	23	..	.. ..
			Others	1	....	2	8	....	.. ..
13	Central Ontario	134·60	Employees	....	....	....	....	....	.....
			Others	....	....	....	....	....	.....
14	Central of New Brunswick	45·66	Employees	....	...	....	....	....	.....
15	Dominion Atlantic	220·50	Employees	....	....	...	....	....	....
			Others	....	....	....	....	....	.....
16	Esquimalt & Nanaimo	78·00	Employees	....	....	....	....	....	.....
17	Grand Trunk	3,142·48	Passengers	1	3	2	21	..	.....
			Employees	7	55	3	26	4	13
			Others	2	8	....	17	....	.....
18	Great Northern of Canada	175·10	Employees	1	1	2	2	....	.....
19	Hereford	53·30	Employees	....	..	....	....	....	....
20	Kaslo & Slocan	31·80	Passengers	....	....	....	....	....	.....
			Employees	...	1	....	....	....	.....
21	Kingston & Pembroke	112·85	Others	....	...	....	....	....	. ..
22	Lake Erie & Detroit River	222·35	Passengers	....	...	....	1	....	.....
			Others	....	....	....	..	....	.....
23	L'Assomption	3·33	Employees	....	....	....	....	....	.....
24	Manitoulin & North Shore	16·00	Employees	....	....	...	1	....	.....
25	Massawippi Valley	35·46	Passengers	...	....	....	....	....	....
			Employees	....	....	....	1	....	.....
			Others	....	....	....	....	....	.....
26	Midland of Nova Scotia	57·50	Employees	1	....	....	...	...	.....
			Others	....	....	....	..	....	....
27	Montreal & Atlantic	163·70	Passengers	.	....	....	....	....	.....
			Employees	....	....	....	....	....	.....
			Others	....	....	..	....	....	.....
28	Montreal & Province Line	40·60	Employees	....	1	....	..	....	.....
			Others	....	....	....	....	....	.....
29	Montreal & Vermont Junction	23·60	Passengers	....	....	....	1	....	.....
			Employees	....	1	....	...	....	.....
			Others	....	....	....	....	....	.....
30	Nelson & Fort Sheppard	54·70	Employees	.	1	....	4	....	1
31	Qu'Appelle, Long Lake & Saskatchewan	253·96	Employees	....	1	....	...	...	.....

SESSIONAL PAPER No. 20

Year ended June 30, 1902.

Putting Arms or Heads out of Windows.		Coupling Cars.		Collisions or by Trains thrown from Track.		Struck by Engine or Cars at Highway Crossing.		Walking, standing, lying or being on Track.		Explosions.		Striking Bridges.		Other Causes.		Totals.		
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Number.
			4	2					1					3	7	6	14	1
														1		1		
		1														1		2
																	1	3
			1												3		4	4
								1								1		
			1													1	1	5
					1												1	6
																	1	
			1					1	1						7	1	13	7
								4	3							5	3	
																	1	
	1	1	2					5							3	7	10	8
								6	4						1	6	8	
			1												1	1	2	9
							1		1						1		3	
					7										3	2	17	
		1	53	2	2			3	3				1		13	13	111	10
						4	3	11	15						1	18	23	
						1										1		
			2												3		8	11
																	1	
				3	45			1	1						6	8	71	
		7	93	22	52			10	18				4	10	122	59	382	12
				3	3	6	22	41	25						4	53	62	
				3												3		
						2										2		13
												2				2		14
			1												1		2	
							1	1								1	1	15
		1														1		16
	3				32										19	3	78	
	3	4	49	5	36		2	15	28				3	5	74	43	289	17
				1	6	23	30	32	26					3	23	61	110	
			7					2								5	10	18
															1		1	19
					1												1	
														1	1	1	2	20
								2								2		21
																	1	
									3								3	22
					1												1	23
															1		2	24
					1										1		2	
															1		2	25
							1								1		2	
																1		26
									1								1	
															1		1	
			1												8		9	27
						2										2		
															1		2	28
					1												1	
									1								2	29
								1								1		
					1						1				2		10	30
			1														2	31

No. 8.—Summary of Accidents for the

Number.	Name of Railway.	Mileage.	Passengers, Employees or Others.	Fell from Cars or Engines.		Jumping on or off Trains or Engines when in motion.		At work on or near Track making up Trains.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
32	Quebec Central	213·50	Employees						
			Others			1			
33	Quebec & Lake St. John	241·00	Employees	1				2	
34	Quebec, Montmorency & Charlevoix, now Quebec Ry. Light & Power Co.	30·00	Employees						
35	Quebec Southern	143·50	Employees						
36	Red Mountain	9·53	Employees		3				1
			Others						
37	Shore Line	82·50	Employees				1		1
38	Stanstead Shefford & Chambly	43·00	Employees						
39	St. Clair Tunnel	2·23	Employees						
40	St. Lawrence & Adirondack	32·82	Employees						
			Others						
41	Sydney & Louisburg	48·96	Employees		2				5
			Others						
42	Tilsonburg, Lake Erie & Pacific	20·00	Employees						
43	Toronto, Hamilton & Buffalo	87·39	Employees		1				
			Others						
				30	178	21	144	10	42

SESSIONAL PAPER No. 20

Year ended June 30, 1902—*Concluded.*

Putting Arms or Heads out of Windows.		Coupling Cars.		Collisions or by Trains thrown from Track.		Struck by Engine or Cars at Highway Crossing.		Walking, standing, lying or being on Track.		Explosions.		Striking Bridges.		Other Causes.		Totals.		
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Number.
				2												2		
				1				3								3		32
			2													3	2	33
						1										1		34
			1		5												6	35
					3												7	
									2								2	36
															8		2	37
									2								2	38
															8		8	39
															1		1	
						1		2								3		40
			3														10	
						1										1		41
															1		1	42
		1	2												10	1	13	
								2								2		43
	7	16	225	44	197	41	60	143	135		1	2	8	23	331	330	1,328	

No. 9—Statistics of Lines of Railway owned by Coal and

Name of Company.	Location.	Length of Line.	Gauge.	Length of Road laid with Steel Rails.	Length of Road laid with Iron Rails.	Weight of Steel Rails per yard.
		Miles.		Miles.	Miles.	Lbs.
Acadia Coal Co., Ltd., N.S.	Stellarton to New Glasgow	3·00	4·8½	3·00	....	60
" " " "	Thorburn to New Glasgow	6·00	4·8½	3·00	3·00	56 & 60
Intercolonial Coal Mining Co., Ltd., N.S.	Drummond Colliery to Granton Pier, Pictou Harbour	*7·50				
Intercolonial Coal Mining Co., Ltd., N.S.	Branch, Drummond Colliery to Drummond Siding	†0·50				
		8·00	4·8½	8·00	....	56
Londonderry Iron Co., N.S.	Acadia Mines to Londonderry Station, I.C.R	3·50	4·8½			
" "	East Mines to East Mines Station, I.C.R	‡4·00	4·8½	7·89	2·61	30 & 50
" "	Acadia Mines to West Mines	§3·00	3·00			
New Vancouver Coal Mining & Land Co., Ltd., B.C	Wharf to No. 5 shaft	5·00				
New Vancouver Coal Mining & Land Co., Ltd., B.C.	Chase River to Harewood Mine	3·75				
		8·75	4·8½	8·75	...	56
N. S. Steel & Coal Co., Ltd., N.S.	Sydney Mines to North Sydney	4·50	4·8½	4·50	.....	80
N. S. Steel & Coal Co., Ltd., N.S.	Ferrona Junct. to Sunny Brae	12·50	4·8½	12·50	.....	56
Sydney & Louisburg Ry	Sydney Harbour to Louisburg Harbour	39·15				
" "	Branch, main line to Old Bridgeport Colliery	0·50				
" "	Branch, main line to Reserve Colliery	2·12				
" "	Branch, main line to International Colliery	0.25				
" "	Branch, main line to Hub Colliery	2·00				
" "	Branch, main line to Glace Bay Colliery	0·50				
" "	Branch, main line to Caledonia Colliery	1·11				
" "	Branch, main line to Gowrie Colliery	1·50				
" "	Branch, Stirling to Shipping pier	0·50				
" "	Branch, Caledonia to Shipping pier	1·33				
		48·96	4·8½	48·96	...	56 & 80
Wellington Colliery Co., Ltd	Wellington Extension to Fiddick's Junct	7·50				
" "	Branch, Esquimalt & Nanaimo Ry., Ladysmith to wharves	1·00				
		8·50	4·8½	8·50	....	35 & 50
" "	Union Bay to Cumberland	10·75				
" "	Branch, Cumberland to No. 4 slope	2·25				
" "	Branch, Junction to No. 5 shaft	2·00				
" "	Branch, No. 5 shaft to No. 7 shaft	2 00				
" "	Branch, No. 7 shaft to No. 8 shaft	2·00				
" "	Branch, main line to freight wharf	1·00				
		20·00	4·8½	20·00	.....	50
		130·71		125·10	5·61	

*Drummond Colliery, Pictou Co., N.S., connecting mines with shipping wharf at Middle River, Port
§Not in operation. Included in the return of this railway as given in the Steam Railway Statistics.

SESSIONAL PAPER No. 20

Iron Mining Companies for the year ended June 30, 1902.

Weight of Iron Rails per yard.	No. of Junctions with other Railways.	No. of Crossings of other Railways at rail level.	No. of Crossings of Highways.	No. of Overhead Bridges.	Height, clear headway, of overhead bridges above rail level.	No. of Locomotive Engines.	No. of Wagons.	Total Mileage Worked	No. of Tons of Coal Carried.	No. of Tons of Iron Ore Carried.	No. of Tons of Iron Carried.	No. of Tons of other Freight Carried.	Total No. of Tons of Freight Carried.
Lbs.					Ft.								
.....	1	.....	2	....	.....	3	17	3·00	1,840	.....	.....	.....	1,840
56	2	.. .	3	1	27·0	2	2	6·00	60,378	.....	....	1,702	62,080
.. ...	1	1	5	....	.....	2	199	8·00	164,983	.....	....	.....	164,983
60	2	....	3	....	.....	2	3	3·50	2,743	.....	4,500	5,832	13,075
.....	....	.....	2	1	14·0	6	272	8 75	428,548	.....	.....	500	429,048
.... .	1	.....	4	1	20·0	4	130	4·50	250,000	.....	.. ..	2,500	252,500
.... .	1	.....	5	....	.....	3	....	12·50	64,000	48,055	28,000	34,558	174,613
....	1	.....	28	2	18·0	20	...	48·96	3,272,000	.....	.....	628,000	3,900,000
.. .	1	....	4	1	16·9	6	190	8·50	337,243	... .	.....	2,604	339,847
....	...	.....	3	....	.....	4	172	20·00	242,239	.... . .	....	3,969	246,208
	10	1	59	6		52	985	123·71	4,823,974	48,055	32,500	679,665	5,584,194

of Pictou, N.S. †Connecting mines with Intercolonial Ry. at Westville, N.S. ‡Not in operation.

No. 10.—Lines of Railway owned by Coal and Iron Mining Companies—Summary of Accidents for the Year ended June 30, 1902.

Name of Company.	Mileage.	Passengers, Employés or Others.	Fell from Cars or Engines, Injured.	At work on or near Track making up Trains, Injured.	Coupling Cars, Injured.	Collisions, or by Trains thrown from Track, Injured.	Struck by Engines or Cars on Highway Crossings, Killed.	Totals. Killed.	Totals. Injured.	Remarks.
Acadia Coal Co., N.S.	9·00	Employes.	....	.....	1	.....	....	....	1	The accidents given here are included in the return of this railway in the Steam Railway statistics. *See* No. 41 of Accident Sheet.
Sydney & Louisburg Ry., N.S.	48·96	Employes.	2	5	3	....	.....	....	10	
		Others.	....	....	....	....	1	1		
Wellington Colliery Co., B.C.	28·50	Others.	....	....	....	1	....	....	1	
			2	5	4	1	1	1	12	

No. 11.—Statement of Aid granted to Railways—Constructed and under Construction—by Governments, up to the year ended June 30, 1902.

Name of Railway.	Loan.	Total.	Bonus.	Total	Subscription to Shares or Bonds.	Total.
Dominion Government.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Albert (now Salisbury and Harvey)	* 29,665 45					
Algoma Central and Hudson Bay			*A* 720,000 00			
Albert Southern			50,460 00			
Atlantic and North-west in Canada			*a* 1,422,000 00			
Baie des Chaleurs (now in Atlantic and Lake Superior)			*A* 746,000 00			
Belleville and North Hastings—Grand Junction (now in Grand Trunk)			21,888 00			
Beauharnois Junction			62,400 00			
Brantford, Waterloo and Lake Erie (now Toronto, Hamilton and Buffalo)			57,600 00			
Brockville, Westport and Sault Ste. Marie			105,200 00			
Bruce Mines and Algoma			*A* 28,800 00			
Buctouche and Moncton			101,600 00			
Canada Atlantic			282,355 20			
Canada Central			1,525,250 00			
Canada Eastern (formerly Northern and Western of New Brunswick)			*b* 374,839 84			
Canadian Pacific			*c*56,112,662 15			
" Revelstoke to Arrow Lake			80,000 00			
" Crow's Nest Pass			3,630,000 00			
" Extension—Pipe Stone Branch			*A* 160,000 00			
Cap de la Madeleine			7,424 00			
Caraquet			224,000 00			
Central of New Brunswick			*A* 142,400 00			
Central of Nova Scotia (formerly Nova Scotia Central)			235,200 00			
Central Ontario			*A* 67,200 00			
Coast Railway of Nova Scotia (now Halifax and Yarmouth			*A* 90,400 00			
Colbourg, Northumberland and Pacific			*A* Lapsed.			
Columbia and Kootenay			88,800 00			
Cornwallis Valley (now in Dominion Atlantic)			44,800 00			
Cumberland Railway and Coal Company			39,850 00			
Drummond Country (now in Intercolonial system)			*A* 423,936 00			
Dominion Lime Company (now in Hereford Ry)			15,360 00			
East Richelieu Valley (now part of Quebec Southern)			*A* †69,952 00			
Elgin and Havelock			*d* 82,652 82			

* Including $14,665.45 rails. ‡ Including $83,612.54 rails to St. Martin's and Upham Ry. *a* Payable in half-yearly instalments of $35,550 each for 20 years, commencing July 1, 1889, and also $1,501,500 as bonus in addition on the portion of this railway through the state of Maine. *b* Including $24,439.84 rails to Chatham Branch. *c* Including cost of railway lines built by Dominion Government, and transferred to Canadian Pacific Railway Company, $31,112,662.15. *d* Including $44,252.82 iron rails. † East Richelieu Valley, balance of $6,848, has lapsed.

No. 11.—Statement of Aid Granted to Railways by Governments—*Continued.*

Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
Dominion Government—*Continued.*	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Erie and Huron (now in Lake Erie and Detroit River Ry.)			96,000 00			
Esquimalt and Nanaimo			750,000 00			
Fredericton and St. Mary's Railway and Bridge Company	300,000 00		30,000 00			
Grand Trunk	15,142,633 33					
Victoria Jubilee Bridge of Grand Trunk Ry.			500,000 00			
Grand Trunk, Georgian Bay and Lake Erie, Owen Sound Branch			39,744 00			
Great Eastern (in Atlantic and Lake Superior)			40,345 00			
Great Northern (exclusive of Ottawa Valley Section)			*A* 498,411 11			
Guelph Junction			46,000 00			
Gulf Shore			*A* 53,699 20			
Hampton and St. Martin (formerly St. Martin and Upham)			‡ 83,612 54			
Harvey Branch			5,553 57			
Hereford			155,200 00			
Intercolonial			68,310,619 55			
Interprovincial Bridge—Ottawa			212,500 00			
International (Atlantic and North-west) C.P.R.			156,800 00			
Inverness and Richmond			*A* 313,600 00			
Irondale, Bancroft and Ottawa			144,000 00			
James Bay			192,000 00			
Joggins (now Canada Coals and Railway Co.)			37,500 00			
Kent Northern	‡58,334 27					
Kingston, Napanee and Western (now in Bay of Quinté)			208,732 80			
Kingston and Pembroke			48,000 00			
L'Assomption			11,200 00			
Lake Erie and Detroit River			475,851 00			
Lake Temiscamingue Colonization			310,335 95			
Leamington and St. Clair (now in Canada Southern)			51,200 00			
Lotbinière and Megantic			96,000 00			
Lower Laurentian (now in Great Northern)			217,600 00			
Massawippi Valley			5,376 00			
Midland of Nova Scotia			*A* 185,600 00			
Montfort and Gatineau Colonization			167,440 00			
Montreal and Lake Maskinongé			41,280 00			
Montreal and Champlain Junction			103,690 00			
Montreal and Ottawa			192,000 00			
Montreal and Province Line (formerly Montreal Portland & Boston)			*A*† 58,560 00			
Montreal and Western			361,270 00			

Nakusp and Slocan			117,760 00
New Brunswick and Prince Edward Island			113,440 00
New Glasgow Iron and Coal Co. (now Nova Scotia Steel Co.)			39,840 00
Northern and Pacific Junction			1,320,000 00
Nova Scotia Southern			*A* 310,400 00
Ontario, Belmont and Northern (leased to Central Ontario)			30,720 00
Ontario and Quebec			196,000 00
Ontario and Rainy River (now in Can. Northern)			*A*1,632,000 00
Orford Mountain			84,800 00
Ottawa, Arnprior and Parry Sound & Parry Sound Colonization (in Canada Atlantic			*A* 779,712 00
Ottawa and Gatineau (now Ottawa, Northern and Western			*A* 275,200 00
Ottawa and New York			*A* 262,384 00
Ottawa Valley (formerly part of Great Northern) now in Atlantic and Lake Superior			21,600 00
Parry Sound Colonization (in Canada Atlantic)			152,800 00
Pembroke Southern (in Canada Atlantic)			*A* 64,000 00
Philipsburg Railway and Quarry Co			*A* 23,712 00
Pontiac Pacific Junction			*A*§ 193,578 00
Pontiac and Renfrew			13,600 00
Port-Arthur, Duluth and Western (now in Canada Northern)			271,200 00
Prince Edward Island			4,599,825 15
Quebec Bridge and approaches			1,000,000 00
Quebec and Lake St. John			1,006,743 50
Quebec Central			348,342 00
Quebec, Montmorency and Charlevoix			96,000 00
Quebec, Montreal, Ottawa and Occidental, North Shore, Montreal to Quebec			†954,000 00
" " " "			1,500,000 00
" " Montreal to Ottawa			‡1,110,000 00
Restigouche and Western			*A* 78,930 00
St. Louis and Richibucto			22,400 00
St. John Bridge and Railway Extension	433,900 00		
St. Lawrence and Adirondack			*A* 149,481 60
St. Mary's River			75,000 00
St. Clair Tunnel			375,000 00
St. Stephen and Milltown			*A* 14,848 00
Shuswap and Okanagan			163,200 00
South Norfolk			34,400 00
South Shore (formerly Montreal and Sorel)			444,357 57
Sydney and Louisburg—Dominion Coal Company			87,808 00
Témiscouata			645,950 00
Thousand Islands			29,840 00
Tilsonburg, Lake Erie and Pacific			*A* 151,712 00
Tobique Valley			134,016 00
Toronto, Grey and Bruce			14,656 00

† Balance of Subsidy has lapsed $2,240.
†Dominion Government pays to Quebec Government 5 per cent interest per annum on these two amounts.
A See note on page No. 21.
‡ Rails, $58,334.27.
§ Balance $138,272—has lapsed.

No. 11—Statement of Aid granted to Railways by Governments—*Continued.*

Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
Dominion Government—*Concluded.*	$ cts.	$ cts.	$ cts	$ cts.	$ cts.	$ cts.
United Counties (now part of Quebec Southern)			*A** 188,816 00			
Waterloo Junction			32,800 00			
West Ontario Pacific			60,000 00			
Western Counties or Yarmouth and Annapolis (now in Dominion Atlantic)			500,000 00			
Windsor and Annapolis (now in Dominion Atlantic)			1,193,369 00			
York and Carleton			*A* 18,336 00			
		15,964,258 61		162,057,927 74		
Ontario Government.						
Bay of Quinté including Kingston Napanee & Western			150,000 00			
Brantford, Norfolk and Port Burwell, Grand Trunk			68,000 00			
Bruce Mines and Algoma			51,000 00			
Canada Atlantic			270,000 00			
Canada Central			1,479,000 00			
Canada Southern			147,858 65			
Central Ontario			189,500 00			
Cobourg, Blairton and Marmora	26,000 00		18,740 00			
Credit Valley			531,000 00			
Erie and Huron (now in Lake Erie and Detroit River Ry.)			83,000 00			
Grand Junction and Belleville and North Hastings			224,660 00			
Grand Trunk, Georgian Bay and Lake Erie			336,000 00			
Hamilton and North-western			565,020 00			
Irondale, Bancroft and Ottawa			315,000 00			
James Bay			730,000 00			
Kingston and Pembroke			456,493 00			
London, Huron and Bruce			178,630 00			
Lindsay Bobcaygeon and Pontypool			57,000 00			
Midland Ontario			168,350 00			
Montreal and Ottawa			100,000 00			
Northern			196,188 00			
North Simcoe			83,300 00			
Ontario, Belmont and Northern (leased to Central Ontario)			41,549 39			
Ontario and Rainy River (now in Canadian Northern)			1,072,800 00			
Ottawa, Arnprior and Parry Sound			434,076 06			
Ottawa and New York			35,000 00			
Parry Sound Colonization			143,250 00			

Pembroke Southern			55,500 00	
Port Arthur, Duluth and Western (now in Canadian Northern)			255,571 00	
Tilsonburg, Lake Erie and Pacific			38,564 00	
Toronto and Nipissing			105,212 00	
Lake Simcoe Junction			53,000 00	
Toronto, Grey and Bruce			375,282 00	
Victoria			312,000 00	
Wellington, Grey and Bruce			241,276 00	
Whitby, Port Perry and Lindsay			94,957 59	
Interprovincial Bridge at Ottawa			50,000 00	
		26,000 00		9,730,777 69
QUEBEC GOVERNMENT.				
Baie des Chaleurs (now in Atlantic and Lake Superior)			1,415,000 00	
Beauharnois Junction			179,073 00	
Canada Atlantic			192,000 00	
Great Eastern (now in Atlantic and Lake Superior)			156,000 00	
Great Northern (including Lower Laurentian)			1,025,733 66	
Drummond County (now in Intercolonial Ry.)			347,420 54	
East Richelieu Valley (now part of Quebec Southern)			115,215 00	
Hereford (including Dominion Lime Coy's Line)			60,500 00	
International (now Atlantic and North-west—C.P.R.)			391,122 02	
Lake Champlain and St. Lawrence Junction			250,280 00	
Lake Temiscamingue Colonization			350,076 82	
L'Assomption			5,512 50	
Lotbinière and Mégantic			126,991 00	
Missisquoi Valley (now Atlantic and North-west—C.P.R.)			228,000 00	
Montfort and Gatineau Colonization			168,395 80	
Montreal and Champlain Junction			150,000 00	
Montreal and Ottawa			182,210 00	
Montreal, Portland and Boston (now Montreal and Province Line)			231,122 00	
Montreal and Sorel (now South Shore)			276,645 00	
Montreal and Western			472,500 00	
Montreal and Lake Maskinongé			87,750 00	
Orford Mountain			98,884 92	
Ottawa and Gatineau (now Ottawa Northern and Western)			780,570 00	
Ottawa Valley (now in Atlantic and Lake Superior)			25,390 00	
Philipsburg Ry. and Quarry Co			25,667 00	
Pontiac Pacific Junction			535,819 15	
Pontiac and Renfrew			17,433 60	
Quebec Bridge			250,000 00	
Quebec and Lake St. John			2,533,000 00	
Quebec Central			1,076,123 14	
Quebec, Montreal, Ottawa and Occidental, including North Shore	3,722,956 00		727,000 00	
Quebec, Montmorency and Charlevoix			306,945 50	
South-eastern (now Montreal and Atlantic)			444,000 00	

* Balance $19,184—has lapsed.

A *See* Note on page No. 21.

No. 11.—Statement of Aid granted to Railways by Governments—*Continued.*

Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
Quebec Government—*Concluded.*	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
St. Lawrence and Adirondack			65,216 00			
Témiscouata			362,250 00			
United Counties (now part of Quebec Southern)			210,000 00			
Waterloo and Magog (now in Atlantic and North-west—C P.R)			92,000 00			
		3,722,956 00		13,961,849 65		
New Brunswick Government.						
Albert (now Salisbury and Harvey)			455,000 00			
Albert Southern			48,680 00			
Buctouche and Moncton			96,000 00			
Caraquet			180,000 00			
Central of New Brunswick			139,000 00			
Fredericton			230,000 00			
Grand Southern (now Shore Line)			413,000 00			
Gulf Shore			41,950 00			
Harvey Branch			9,000 00			
Kent Northern			135,000 00			
New Brunswick			76,000 00			
New Brunswick and Canada			575,000 00			
New Brunswick and Prince Edward Island			99,708 90			
Northern and Western (now Canada Eastern)			400,000 00			
Elgin, Petitcodiac and Havelock (now Elgin and Havelock)			107,500 00			
Restigouche and Western			23,000 00			
St. Martin and Upham (now Hampton and St. Martin)			145,600 00			
St. John Bridge and Railway extension			5,181 81			
St. John and Maine			880,000 00		300,000 00	
St. Louis and Richibucto			21,000 00			
St. Stephen and Milltown			13,920 00			
Témiscouata			66,000 00			
Tobique Valley			70,000 00			
York and Carleton			13,899 00			
				4,244,439 71		300,000 00
Nova Scotia Government.						
Cape Breton			45,000 00			
Coast Line (now Halifax and Yarmouth)			288,000 00			

Cornwallis Valley (now in Dominion Atlantic)			44,890 00			
Canada Coal and Railway Co.'s Line (formedy Joggins)			35,200 00			
Inverness and Richmond (now Inverness Railway and Coal Co.			272,000 00			
Midland Ry. of Nova Scotia (formerly Stewiacke Valley and Lansdowne)			192,000 00			
New Glasgow Iron, Coal and Railway Co. (now Nova Scotia Steel Co.)			40,000 00			
Nova Scotia Central (now Central Railway of Nova Scotia)			432,261 08			
Nova Scotia Southern			374,400 00			
Springhill and Parrsboro' (Cumberland Railway and Coal Co.)			173,650 00			
Sydney and Louisburg, Dominion Coal Co			87,808 00			
Western Counties, Yarmouth and Annapolis (now in Dominion Atlantic)			679,197 45			
				2,664,316 53		
MANITOBA GOVERNMENT.						
Canadian Pacific			300,377 50			
Manitoba South-western Colonization	900,000 00					
Northern Pacific and Manitoba			641,575 25			
		900,000 00		941,952 75		
BRITISH COLUMBIA GOVERNMENT.						
Canadian Pacific			37,500 00			
				37,500 00		
Total aid granted by Governments		20,613,214 61		193,638,764 07		300,000 00

NOTE.—For Statement of payments of Government Aid granted to Railways, see No, 1 Summary Statement of Capital.

No. 11.—Statement of Aid granted to Railways—Constructed and under Construction—by Municipalities, June 30, 1902.

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription in Shares or Bonds.	Total.
Ontario.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Deseronto	Bay of Quinté Ry				30,000 00		
Town of Napanee	Kingston, Napanee and Western			30,000 00			
Village of Newburgh	" "			7,500 00			
Township of Camden	" "			30,000 00			
" Sheffield	" "			15,000 00			
" Loughborough	" "			5,000 00			
City of Kingston	" "			75,000 00			
					162,500 00		
Town of Brockville	Brockville, Westport and Sault Ste. Marie			36,000 00			
Elizabethtown	" "			7,000 00			
Rear of Yonge and Escott	" "			15,000 00			
" Leeds and Lansdowne	" "			5,000 00			
Bastard and Burgess	" "			28,000 00			
South Crosby	" "			6,000 00			
Village of Newboro'	" "			4,000 00			
North Crosby	" "			15,000 00			
					116,000 00		
Various municipalities	Buffalo and Lake Huron				966,000 00		
Renfrew	Canada Central, now Can. Pacific					30,000 00	
Horton	"					7,500 00	
Admaston	"					5,000 00	
							42,500 00
County of Elgin	Canada Southern			200,000 00			
Township of Townsend	"			30,000 00			
" Dereham	"			15,000 00			
" Anderdon	"			15,000 00			
Town of St. Thomas	"			25,000 00			
Township of Malden	"			15,000 00			
Town of Amherstburg	"			15,000 00			
South Norwich	"			7,500 00			
					322,500 00		
Sault Ste. Marie	Canadian Pacific			20,000 00			
Carleton Place	"			20,000 00			
Owen Sound	"			40,000 00			
					80,000 00		
Northumberland and Durham	Cobourg, Blairton and Marmora				113,500 00		
West Hawkesbury	Central Counties			15,000 00			

Vankleek Hill	"			1,200 00	
Dalkeith	"			800 00	
Rockland	"			6,000 00	
Clarence	"			1,600 00	
					24,000 00
Town of Trenton	Central Ontario			10,000 00	
Wellington Village	"			2,500 00	
Town of Pictou	"			21,000 00	
County of Prince Edward	"			60,000 00	
					93,500 00
County of Oxford	Credit Valley			200,000 00	
" Wellington	"			135,000 00	
" Waterloo	"			110,000 00	
" Peel	"			75,000 00	
" Halton	"			70,000 00	
City of Toronto	"			350,000 00	
" St. Thomas	"			50,000 00	
Town of Milton	"			30,000 00	
" Brampton	"			20,000 00	
" Ingersoll	"			10,000 00	
" Orangeville	"			15,000 00	
Village of Streetsville	"			20,000 00	
					1,085,000 00
County of Kent	Erie and Huron, now in Lake Erie and Detroit.			155,000 00	
City of Chatham	"			30,000 00	
Town of Sarnia	"			16,000 00	
Village of Dresden	"			20,500 00	
" Bleinheim	"			11,000 00	
" Wallaceburg	"			11,000 00	
Township of Sombra	"			14,000 00	
" Woodhouse	Grand Trunk, Georgian Bay and Lake Erie			15,000 00	257,500 00
Town of Simcoe	"	"		10,000 00	
Township of South Norwich	"	"		10,000 00	
" North "	"	"		} 40,000 00	
Town of Woodstock	"	"			
Township of East Oxford	"	"		25,000 00	
" Woodstock	"	"		25,000 00	
Town of Woodstock	"	"		} 60,000 00	
" Stratford	"	"			
County of Perth	"	"		120,000 00	
Township of Mornington	Grand Trunk, Georgian Bay and Lake Erie			40,000 00	
Township of Elma	"	"		10,000 00	
Town of Listowel	"	"		15,000 00	
Township of Wallace	"	"		10,000 00	
Town of Palmerston	"	"		30,000 00	
Township of Minto	"	"		25,000 00	
Town of Harriston	"	"		20,000 00	

No. 11.—STATEMENT of Add granted to Railways by Municipalities—*Continued.*

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
ONTARIO—*Continued.*		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Township of Normanby	Grand Trunk, Georgian Bay, and Lake Erie			80,000 00			
Towaship of Bentinck	" "			65,000 00			
Township of Brant	" "			20,000 00			
" Elderslie	" "			45,000 00			
" Arran	" "			45,000 00			
" Amabel	" "			43,000 00			
" Keppel	" "			32,000 00			
" Albemarle	" "			10,000 00			
Town of Mount Forest	" "			22,000 00			
Township of Egremont	" "			60,000 00			
Township of Glenelg	" "			20,000 00			
Town of Durham	" "			32,000 00			
					929,000 00		
Town of Owen Sound	Grand Trunk, Owen Sound Branch.			75,000 00			
Township of Sarawak	" "			7,500 00			
Township of Keppel	" "			3,000 00			
					85,500 00		
City of Belleville	Grand Junction and Belleville			150,000 00			
Village of Sterling	" & N. Hasting Ry			5,000 00			
Township of Rawdon	"			15,000 00			
" Seymour	"			35,000 00			
" Percy	"			} 8,000 00		50,000 00	
" Asphodel	"				213,000 00		50,000 00
City of Guelph	Guelph Junc. leased to Can. Pac. R.					193,000 00	193,000 00
Town of Parry Sound	James Bay			20,000 00			
County of Frontenac	Kingston and Pembroke			170,000 00			
City of Kingston	" "			318,000 00			
Village of Renfrew	" "			3,000 00			
					491,000 00		
City of Hamilton	Hamilton and North-western			99,733 00			
Village of Georgetown	" "			11,289 00			
County of Peel	" "			30,974 00			
" Simcoe	" "			354,007 00			
Town of Collingwood	" "			12,084 00			
Township of Innisfil	" "			22,592 00			

" Woodhouse	"	"			20,740 00	
" Adjala	"	"			2,500 00	
" Essa	"	"			2,500 00	
" Tossoronto	"	"			10,000 00	
" Mulmur	"	"			5,000 00	
Village of Alliston	"	"			8,000 00	
Township of Nottawasaga	"	"			20,386 00	
						599,805 00
Interprovincial Bridge at Ottawa	City of Ottawa					150,000 00
Township of South Colchester	Lake Erie and Detroit River				20,000 00	
" Gosfield	"	"			15,000 00	
Village of Kingsville	"	"			10,000 00	
Township of Romney	"	"			10,000 00	
" East Tilbury	"	"			5,000 00	
" Raleigh	"	"			10,000 00	
Village of Blenheim	"	"			5,000 00	
" Ridgetown	"	"			12,500 00	
Township of Alborough	"	"			7,000 00	
" Oxford	"	"			2,000 00	
Village of Dutton	"	"			2,500 00	
						99,000 00
Township of East Gwillimbury	Lake Simcoe Junction (in Grand Trunk system)				45,000 00	
" North "	"	"			20,000 00	
" Georgina	"	"			20,000 00	
" Whitchurch	"	"			15,000 00	
						100,000 00
Village of Leamington	Leamington and St. Clair (in Canada Southern)				12,000 00	
Township of Mersea	"	"			15,000 00	
Village of Comber	"	"			6,000 00	
						33,000 00
Town of Lindsay	Lindsay, Bobcaygeon and Pontypool				25,000 00	
" Bobcaygeon	"	"			11,000 00	
Township of Verulam	"	"			14,000 00	
" Harvey	"	"			3,000 00	
" Ops	"	"			15,000 00	
" Manvers	"	"			5,000 00	
" Cartwright	"	"			5,000 00	
						78,000 00
Township of London	London, Huron and Bruce (now in Grand Trunk system)				15,000 00	
" Stephen	"	"			17,500 00	
" Osborne	"	"			25,000 00	
" Hay	"	"			15,000 00	
" Goderich	"	"			15,000 00	
" East Wawanosh	"	"			25,000 00	
" Hallet	"	"			25,000 00	
" Tuckersmith	"	"			10,000 00	
" Turnberry	"	"			5,000 00	
" Morris	"	"			10,000 00	

No. 11.—STATEMENT of Aid granted to Railways by Municipalities—*Continued.*

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
ONTARIO—*Continued.*		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Township of Stanley	London, Huron and Bruce (now in Grand Trunk system)			10,000 00			
Village of Clinton	" "			20,000 00			
" Exeter	" "			10,000 00			
Village of Kincardine " Wigan	London, Huron and Bruce			9,000 00			
City of London	" "			100,000 00			
					311,500 00		
Municipalities	London and Port Stanley (leased to Lake Erie and Detroit river Ry.)		680,311 00				
County of Elgin	" "					80,000 00	
" Middlesex	" "					100,000 00	
City of London	" "					200,000 00	
" St. Thomas	" "					34,000 00	
							414,000 00
Township of Thorah	Midland (now in Grand Trunk system).			50,000 00			
Town of Port Hope	"			30,000 00			
Townships of Orillia and Matchedash	"			12,500 00			
Town of Orillia	"			12,500 00			
Township of Tay	"			21,370 85			
Village of Omemee	"			2,000 00			
Township of Mara	"			12,500 00			
Town of Peterborough	"			4,000 00			
					144,870 85		
City of Toronto	Northern (now in Grand Trunk System).			100,000 00		190,000 00	
County of Simcoe	"					200,000 00	
Town of Barrie	"			30,000 00			
" Orillia	"			12,500 00			
Townships of Collingwood, Euphrasia and St. Vincent	"			99,480 00			
					241,980,00		390,000 00
Town of Smith's Falls	Ontario and Quebec (in Can. Pacific system).			25,000 00			
" Merrickville	"			10,000 00			
Township of West Winchester	"			15,000 00			

" Thamesford	"			2,500 00			
					52,500 00		
Town of Port Arthur	Ontario and Rainy River				50,000 00		
City of Ottawa	Ottawa, Arnprior and Parry Sound (now Canada Atlantic).			150,000 00			
Township of Huntley	" "			2,900 00			
" Hagarty	" "					2,000 00	
Town of Arnprior	" "					30,000 00	
					152,900 00		32,000 00
Town of Pembroke	Pembroke Southern				20,000 00		
" Port Arthur	Port Arthur, Duluth and Western (now in Canadian Northern).			25,000 00			
Municipality of Neebing	" "			15,000 00			
					40,000 00		
Township of Russell	Ottawa and New York			10,000 00			
City of Ottawa				75,000 00			
					85,000 00		
Town of Simcoe	South Norfolk (in Grand Trunk system).			5,000 00			
Township of Charlotteville	"			20,000 00			
" South Walsingham	"			40,000 00			
					65,000 00		
City of Ottawa	St. Lawrence and Ottawa	200,000 00				60,000 00	
Town of Prescott	" "	100,000 00				30,000 00	
			300,000 00				90,000 00
" Gananoque	Thousand Islands				10,000 00		
Township of Bayham	Tilsonburg, Lake Erie and Pacific			35,000 00			
" Malahide	" "			4,000 00			
" Houghton	" "			3,000 00			
Town of Tilsonburg	" "			10,000 00			
Village of Vienna	" "			3,000 00			
Town of Ingersoll	" "			20,000 00			
					75,000 00		
City of Toronto	Toronto and Nipissing (in Grand Trunk system).			150,000 00			
Township of Scarboro'	" "			10,000 00			
" Markham	" "			30,000 00			
" Uxbridge	" "			50,000 00			
" Scott	" "			10,000 00			
" Brock	" "			50,000 00			
" Eldon	" "			44,000 00			
" Bexley	" "			15,000 00			
" Somerville	" "			15,000 00			
Townships of Luxton, Digby and Langford	" "			12,500 00			
Town of Uxbridge	" "			2,000 00			
					*376,702 59		

* Amount returned has realized, balance has lapsed, see return of 1875.

No. 11.—STATEMENT of Aid granted to Railways by Municipalities—*Continued.*

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscriptions to Shares or Bonds.	Total.
ONTARIO—*Con.*		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Township of Albion	Toronto, Grey and Bruce (in Can. Pac. system).			40,000 00			
" Caledon	" "			45,000 00			
" Mono	" "			45,000 00			
" Amaranth	" "			30,000 00			
" Arthur	" "			35,000 00			
Town of Orangeville	" "			15,000 00			
" Mount Forest	" "			20,000 00			
City of Toronto	Toronto, Grey and Bruce			350,000 00			
County of Grey (Group)	" "			300,000 00			
Town of Owen Sound	" "			5,000 00			
Township of Minto	" "			15,000 00			
" Howick	" "			35,000 00			
Townships of Gorrie and Wroxeter	" "			5,000 00			
Village of Teeswater	" "			5,000 00			
Township of Culross	" "			38,000 00			
" Turnbury	" "			5,000 00			
	Toronto, Hamilton and Buffalo, comprising Brantford, Waterloo and Lake Erie				988,000 00		
City of Brantford	" "			25,000 00			
Township of Oakland	" "			9,000 00			
" Waterford	" "			2,500 00			
City of Hamilton	" "			225,000 00			
Township of South Grimsby	" "			4,000 00			
					265,500 00		
Town of Lindsay	Victoria (in Grand Trunk system)			85,000 00			
Village of Fenelon Falls	" " "			25,000 00			
Townships of Verulam and Somerville	" " "			22,000 00			
County of Haliburton	" " "			54,000 00			
					186,000 00		
Township of Woolwich	Waterloo Junction (in Grand Trunk system)			28,000 00			
Section of Peel	" "			7,000 00			
Village of Elmira	" "			10,000 00			
" St. Jacobs	" "			2,000 00			
					47,000 00		

Fergus	Wellinton, Grey and Bruce			10,000 00		
Peel	" "			40,000 00		
Elora	" "			10,000 00		
Maryboro'	" "			40,000 00		
Nichol	" "			10,000 00		
Wallace	" "			35,000 00		
Minto	" "			65,000 00		
Bruce	" "			278,000 00		
Howick	" "			20,000 00		
Listowel	" "			15,000 00		
Grey	" "			35,000 00		
Elma	" "			30,000 00		
Morris	" "			30,000 00		
W. Wawanosh	" "			18,000 00		
Ashfield	" "			10,000 00		
Turnbury	" "			28,000 00		
Kincardine	" "			8,000 00		
					682,000 00	
City of London	West Ontario Pacific				25,000 00	
Town of Whitby	Whitby, Port Perry and Lindsay (in Grand Trunk system).			70,000 00		
Township of Whitby	"	"		15,000 00		
" Reach	"	"		30,000 00		
" Scugog	"	"		2,000 00		
County of Victoria	"	"		85,000 00		
Village of Port Perry	"	"		20,000 00		
Manufacturing Co	"	"		94 93		
					222,094 93	
			980,311 00			
					10,115,853 37	1,211,500 00
QUEBEC.						
Caplin	Baie des Chaleurs (now in Atlantic and Lake Superior system).			5,000 00		
New Richmond	"			6,000 00		
Maria	"			6,000 00		
Carleton	"			6,000 00		
Nouvelle and Shoolbred	"			6,000 00		
New Carlisle	"			6,000 00		
Paspebiac	"			3,000 00		
Hamilton	"			2,500 00		
					40,500 00	
Parish of St. Antoine	Great Eastern			10,000 00		
" St. Denis	"			10,000 00		
					20,000 00	
Village St. Andrews	Ottawa Valley				10,000 00	
Farnham	Canadian Pacific				20,000 00	
Town of Nicolet	Drummond County (now in Intercolonial Ry.).			10,000 00		
Municipality of St. Leonard	"			5,000 00		
					15,000 00	

No. 11.—Statement of Aid granted to Railways by Municipalities—*Continued.*

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscriptions to Shares or Bonds.	Total.
Quebec—*Continued.*		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Sabrevois	East Richelieu Valley (now in Quebec Southern).			2,000 00			
Henryville	" "			4,500 00	6,500 00		
Parish of St. Sophie	Great Northern of Canada			4,000 00			
Village of New Glasgow	" "			2,000 00			
" St. Elizabeth	" "			6,000 00			
Town of Joliette	" "			35,000 00	47,000 00		
City of Three Rivers	Lower Laurentian (in Great Northern).				25,000 00		
City of Quebec	Great Northern of Canada						200,000 00
County of Compton	International, now in Atlantic and North-west, C.P.R.						225,000 00
Township of Melbourne and Brompton Gore	Missisquoi & Black Riv. Valley, now in Atlantic & North-west, C.P.R.					25,000 00	
Township of Ely	" "					25,000 00	
Township of North Stukely	" "					25,000 00	
" Bolton	" "					25,000 00	
							100,000 00
St. Pie	Lake Champlain and St. Lawrence J (leased to Montreal and Atlantic Ry.)			20,000 00			
L'Ange Gardien	" "			10,000 00			
St. Paul	" "			6,000 00			
Philipsburg	" "			15,000 00			
					51,000 00		
Town of L'Assomption	L'Assomption				1,500 00		
Ascot	Massawippi Valley					40,000 00	
Hatley	"					25,000 00	
							65,000 00
Ormstown	Montreal & Champlain Junction—(Grand Trunk)			10,000 00			
St. Constant	" "			1,800 00			
Ste. Philomène	" "			2,820 00			
Laprairie	" "			1,904 00			
Huntingdon	" "			3,000 00			
St. Isidore	" "			1,500 00			
Dewittsville	" "			750 00			
					21,774 00		

Municipality of Rigaud	Montreal and Ottawa			2,000 00			
Parish of Rigaud	"			800 00			
Point Fortune	"			2,500 00			
	Montreal and Province line, formerly				5,300 00		
Chambly Canton	Montreal, Portland and Boston			15,000 00			
" Basin	" "			10,000 00			
					25,000 00		
County of Pontiac	Pontiac Pacific Junction			100,000 00			
Village of Shawville	" "			1,000 00			
					101,000 00		
City of Sherbrooke	Quebec Central			50,000 00			
Parish of Dudswell	"			25,000 00			
" Weedon	"			25,000 00			
Township of Garthby	"			3,000 00			
					103,000 00		
City of Quebec	Quebec Bridge				300,000 00		
City of Quebec	Quebec and Lake St, John					450,000 00	450,000 00
Town of Chicoutimi	" " "				12,000 00		
City of Montreal	Quebec, Montreal, Ottawa and Occidental	1,000,000 00					
City of Quebec	" "	1,000,000 00					
" Three Rivers	" "	100,000 00					
County of Ottawa	" "	200,000 00					
St. Sauveur de Québec	" "	25,000 00					
Côte St. Louis	" "	25,000 00					
Village of Ste. Thérèse	" "	12,000 00					
Parish of "	" "	12,000 00					
" St. Jérôme	" "	10,000 00					
Village "	" "	15,000 00					
Ste. Scholastique	" "	10,000 00					
St. Andrews	" "	25,000 00					
St. Jérusalem d'Argenteuil	" "			25,000 00			
			2,434,000 00		25,000 00		
County of Brome	South-eastern (now Montreal and Atlantic)					56,000 00	
Township of Brome	" "					50,000 00	
" Sutton	" "					63,000 00	
" Potton	" "					25,000 00	
" Farnham	" "					20,000 00	
Village of West Farnham	" "					5,000 00	
" East "	" "					5,000 00	
" Waterloo	" "					30,000 00	
" Drummondville	" "					15,000 00	
County of Drummond	" "					90,000 00	
Township of Wickham	" "					10,000 00	
" St. Germain	" "					15,000 00	
" Sorel	" "					40,000 00	
Village of Actonvale	" "					15,000 00	
" Roxton Falls	" "					15,000 00	
Township of Roxton	" "					20,000 00	

No. 11.—STATEMENT of Aid granted to Railways by Municipalities—*Concluded.*

Municipalities.	Name of Railway.	Loan.	Total.	Bonus.	Total.	Subscription to Shares or Bonds.	Total.
QUEBEC—*Concluded.*		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Township of Shefford	South-eastern (now Montreal and Atlantic)					50,000 00	
" West Wickham	" "					10,000 00	
City of Sorel	South Shore, formerly Mont. & Sorel				25,000 00		528,000 00
Fraserville	Témiscouata				25,000 00		
			2,434,000 00		873,074 00		1,568,000 00
NEW BRUNSWICK.							
Hillsboro', Hopewell and Harvey Parishes	Albert, now Salisbury and Harvey			40,000 00			
Coverdale, Hillsboro', Hopewell and Harvey Parishes	"			30,000 00			
					70,000 00		
City of St. John	Canadian Pacific				40,000 00		
" Fredericton	Fredericton			50,000 00			
County of York	"			30,000 00			
					80,000 00		
Parish of St. George	Grand Southern, now Shore Line			2,000 00			
" Pennfield	" "			500 00			
Lepreau	" "			500 00			
					3,000 00		
Town of Fort Fairfield	New Brunswick			12,000 00			
" Lyndon	"			11,000 00			
					23,000 00		
City of Calais	New Brunswick and Canada			12,500 00			
" Houlton	" "			22,000 00			
" St. Stephen	" "			13,000 00			
					47,500 00		
County of Northumberland	Northern and Western of New Brunswick, now Canada Eastern				20,000 00		
Parish of Elgin	Elgin and Havelock				13,000 00		
Town of Campbellton	Restigouche and Western				5,000 00		
City of St. John	St. John and Maine						60,000 00
					301,500 00		60,000 00

NOVA SCOTIA.							
County of King	Cornwallis Valley (now in Dominion Atlantic)				27,685 00		
Counties of Yarmouth, Digby and Annapolis	Western Counties) Yarmouth and Annapolis (now in Dominion Atlantic)				150,000 00		
Town of Truro	Midland of N.S., formerly Stewiake Valley and Lansdowne				30,000 00		
County of Picton	New Glasgow Iron, Coal and Railway Co., (now Nova Scotia Steel Co's Ry.)				4,000 00		
" Shelburne	Nova Scotia Southern			50,000 00			
" Queen's	"			25,000 00			
" Lunenburg	"			5,000 00			
					80,000 00		
Lunenburg	Central, Nova Scotia				88,874 17		
Argyle	Halifax & Yarmouth				5,000 00		
County of Inverness	Inverness & Richmond				100,000 00		
					485,559 17		
MANITOBA.							
City of Winnipeg	Canadian Pacific			200,000 00			
County of Selkirk	"			35,000 00			
Township of St. Andrews	"			35,000 00			
Town of Morris	"			100,000 00			
					370,000 00		
County of Westborne	Manitoba and North-western			75,000 00			
Town of Portage la Prairie	" "			50,000 00			
" Minnedosa	" "			30,000 00			
Municipality of Shoal Lake	" "			20,000 00			
" Birtle	" "			40,000 00			
" Strathclair	" "			600 00			
					215,600 00		
Rapid City	Saskatchewan and Western				10,000 00		
					595,600 00		
BRITISH COLUMBIA.							
City of New Westminster	Canadian Pacific				37,500 00		
NORTH-WEST TERRITORIES.							
Calgary	Canadian Pacific				25,000 00		
Total aid granted by municipalities			3,414,311 00		12,434,086 54		2,839,500 00

NOTE.—For statement of payments of Municipal Aid granted to Railways—See No. 1 Summary statement of Capital.

No. 10.—SUMMARY STATEMENT of aid granted to Steam Railways constructed and under construction by Governments and Municipalities, June 30, 1902.

—	Loan.	Total.	Bonus.	Total.	Subscription to shares or Bonds.	Total.	Grand Total.	
Governments.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
Dominion	15,964,258 61		162,057,927 74				178,022,186 35	
Ontario	26,000 00		9,730,777 69				9,756,777 69	
Quebec	3,722,956 00		13,961,849 65				17,684,805 65	
New Brunswick			4,244,439 71		300,000 00		4,544,439 71	
Nova Scotia			2,664,316 53				2,664,316 53	
Manitoba	900,000 00		941,952 75				1,841,952 75	
British Columbia			37,500 00				37,500 00	
		20,613,214 61		193,638,764 07		300,000 00		214,551,978 68
Municipalities.								
Ontario	980,311 00		10,115,853 37		1,211,500 00		12,307,664 37	
Quebec	2,434,000 00		873,074 00		1,568,000 00		4,875,074 00	
New Brunswick			301,500 00		60,000 00		361,500 00	
Nova Scotia			485,559 17				485,559 17	
Manitoba			595,600 00				595,600 00	
British Columbia			37,500 00				37,500 00	
North-west Territories			25,000 00				25,000 00	
		3,414,311 00		12,434,086 54		2,839,500 00		18,687,897 54
		24,027.525 61		206,072,850 61		3,139,500 00		233,239,876 22

ELECTRIC RAILWAY STATISTICS

OF THE

DOMINION OF CANADA

FOR THE YEAR ENDED JUNE 30, 1902

No. 1.—Summary Statement of Capital of Electric Railways for the Year ended June 30, 1902.

Year	Length of Line		Ordinary Share Capital		Preference Stock or Bonds		Bonded Debt			Debentures, Advances, &c.			Proprietors' Investment As			Miscellaneous			Total		
	Completed. Main Line Tracks.	Other Lines.	Authorized.	Subscribed.	Paid up.	Authorized.	Subscribed.	Paid up.	Authorized.	Issued.	Rate of Interest.	Loans.	Bonds.	Subscribed for Shares or Bonds.	Paid up.	Leases.	Bonds.	Subscribed for Shares or Bonds.	Paid up.	Leases.	Bonds.	Subscribed for Shares or Bonds.	Paid up.
	Miles.	Miles.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	p. c.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec	67		60,000 00	53,100 00	50,700 00				90,000 00	9,000 00	5												
Ontario	82		1,114,000	113,900 00						1,500 00													
Canada	82 25		1,200,000 00	975,333 00	975,333 00	975,333 00	975,333 00	975,333 00	1,300,000 00	1,300,000 00	6												
Nova Scotia	6 00		150,000 00	112,000 00	112,000 00					100,000 00	5												
New Brunswick	9 70		100,000 00	82,000 00	82,000 00																		
Prince Edward Island			50,000 00	25,000 00					50,000 00	40,000 00	5												
Ontario	10 82		1,000,000 00	900,000 00					600,000 00	600,000 00	5												
Quebec	7 22		500,000 00	330,000 00					400,000 00	300,000 00	5												
Manitoba and Northwest	23 00		200,000 00	200,000 00					400,000 pref. each	400,000 00	5					2,000 00	1,000 00		2,000 00				
British Columbia	21 00		75,000 00	75,000 00																			
Canada	81 00		2,075,000 00	1,937,000 00					1,000,000 00	1,000,000 00	5												
Nova Scotia and Ontario	3 00		150,000 00	150,000 00																			
Ontario and Quebec	5 30		150,000 00	150,000 00	50,000 00	50,000 00	50,000 00	300,000 00	300,000 00	300,000 00	6												
Ontario	18 35		750,000 00	600,000 00					750,000 00	600,000 00	5												
Quebec	28 00		400,000 00	400,000 00					450,000 00	400,000 00	5												
Canada	74 65		1,000,000 00	750,000 00	600,000 00	300,000 00	300,000 00	1,800,000 00	1,125,000 00	1,125,000 00	6												
Prince Edward Island	14 00		200,000 00	200,000 00					200,000 00	200,000 00	5												
Nova Scotia	14 70		600,000 00	600,000 00					450,000 00	450,000 00	5												
Ontario	5 00		250,000 00	250,000 00					75,000 00	50,000 00													
Quebec	11 00		1,000,000 00	1,000,000 00					500,000 00	500,000 00	5												
Canada and Ontario	79		1,000,000 00	950,000 00					600,000 00	600,000 00	5	50,000 00				40,000 00			40,000 00				
Canada and Quebec	17 00		500,000 00	500,000 00					500,000 00	500,000 00	5												
Ontario and Quebec	30		1,000,000 00	1,000,000 00					750,000 00	750,000 00	5												
Ontario	16 00		500,000 00	500,000 00					500,000 00	500,000 00	5	25,000 00											
Quebec	4 00		200,000 00	200,000 00					80,000 00	80,000 00	5												
Ontario and Quebec	60		1,000,000 00	1,000,000 00					1,000,000 00	1,000,000 00	5	50,000 00					100,000 00	100,000 00					
Ontario	4 00		100,000 00	100,000 00					100,000 00	100,000 00	5												
Ontario and Quebec	40		1,000,000 00	1,000,000 00					1,000,000 00	1,000,000 00	5												
Ontario	4 00		200,000 00	200,000 00					200,000 00	200,000 00	5												
Ontario	4 00		100,000 00	100,000 00					100,000 00	100

SUMMARY of Tables of Electric Railways for the years ended June 30, 1901, and June 30, 1902.

	Comparative Statement.	
	June 30, 1901.	June 30, 1902.
Miles of railway completed (track laid)	675	558
" sidings	14	26
" iron rails in main line	5	5
" steel " "	670	553
" " " double track	158	169
Capital paid (including the two following items)	39,076,019	41,593,064
Government (Dominion) bonuses paid	60,800	60,800
Municipal aid paid	173,000	173,000
Miles in operation	672	557
Gross earnings	5,768,283	6,486,438
Working expenses	3,435,163	3,802,855
Net earnings	2,333,120	2,683,583
Passengers carried	120,934,656	137,681,402
Freight carried (tons)	287,926	266,182
Car mileage	31,750,754	35,833,841
Passengers killed	3	8
Number of guarded level crossings, public roads	17	9
" unguarded " "	247	226
" overhead bridges "	20	16
" public roads under crossings		9
" level crossings of other railways	74	89
" junctions with other railways	24	37
" " branch lines	8	8
" power houses (steam power) owned	28	25
" " " hired	2	2
" " (water power) owned	10	12
" " " hired	1	1
" passenger cars (motor) owned	1,728	1,900
" " " hired	8	
" " (trailers) owned	291	289
" " " hired	2	2
" locomotives owned	8	2
" " hired	1	
" baggage, mail and express cars owned	13	13
" cattle and box cars owned	7	6
" platform cars owned	56	65
" tool cars owned	7	11
" snow ploughs owned	16	23
" snow sweepers owned	62	63

(See explanatory note on next page).

The mileage of 1901, included the following :

Belleville Traction Co., 2·00 miles which has since been closed and franchise lost.

The following companies included erroneously the following lengths of double track : British Columbia, 7·50 miles ; London St., 11·68 miles ; Montreal Park and Island, 13·00 miles ; Montreal St., 38·79 miles ; Toronto St., 43·55 miles ; Winnipeg, 5·00 miles ; Niagara, St. Catherines and Toronto, 2·15 miles of Sidings.

The above lengths of double track and sidings have been excluded from the lengths of the several Electric Railways, as given for 1902.

The capital account of 1901, included $1,955,176 73 of floating debt, under the head of "Capital from other sources"—which has been excluded in Capital Account for 1902.

MILEAGE IN PROVINCES FOR YEAR ENDED JUNE 30, 1902.

	Miles.
Ontario	333·95
Quebec	140·97
New Brunswick	12·00
Nova Scotia	12·42
Manitoba	13·00
British Columbia	45·25
Total	557·59

ELECTRIC RAILWAYS.

NOMINAL Capital paid up, June 30, 1902.

—	Miles constructed.	Ordinary Share Capital.	Preference Share Capital.	Bonded Debt.	Dominion Government Aid.	Municipal Aid.	Capital from other Sources.	Total.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario	333·95	10,995,098 96	164,500 00	7,383,505 49	60,800 00	173,000 00	404,424 17	19,181,328 62
Quebec	140·97	8,712,900 00	315,000 00	4,428,333 00				13,456,233 00
New Brunswick	12·00	500,000 00		675,000 00				1,175,000 00
Nova Scotia	12·42	854,500 00		600,000 00				1,454,560 00
Manitoba	13·00	1,241,750 00		1,000,000 00				2,241,750 00
British Columbia	45·25	1,223,333 00	973,333 00	1,239,986 00			647,600 00	4,084,252 00
Totals	557·59	23,527,581 96	1,452,833 00	15,326,824 49	60,800 00	173,000 00	1,052,024 17	41,593,063 62

No. 2.—Summary Statement of the different descriptions

Number.	Name of Electric Railway.	Length of Line.		No. of Power Houses.				Passenger Cars.			
				Steam Power		Water Power		No. of Motor Cars.		No. of Trailer Cars.	
		Completed.	Under Construction.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.	Owned.	Hired.
1	Berlin and Waterloo	3·02						5		2	
2	Brantford Street	5·90		1				10		4	
3	British Columbia	42·25		2		1		49			
4	Cornwall Street	6 00		1		1		8			
5	Galt, Preston and Hespeler	9·00		1				8		3	
6	Guelph	5·50		1				5		3	
7	Halifax Tramway	10·42		1				32		6	
8	Hamilton and Dundas	7·25					*	3		2	
9	Hamilton, Grimsby and Beamsville	23·00		1				9			
10	Hamilton Radial	12·00		1				8		1	
11	Hamilton Street	22·00					*	64			
12	Hull	13·63				1	1	17		4	
13	Kingston, Portsmouth and Cataraqui	7·40			1			22			
14	London Street	18·32		1				*32		10	
15	Metropolitan (Toronto)	28·00		2				13		3	
16	Montreal Park and Island	24·05				2		41			
17	Montreal Street	64·64				1		†695			
18	Montreal Terminal	14·10		1				17			
19	Nelson Tramway, B.C	3·00			*			3			
20	Niagara Falls Park and River	13·68		1		1		25		16	
21	Niagara, St. Catharines and Toronto	17·79		2				13			
22	Niagara Falls, Wesley Park and Clifton	4·50			*			6			
23	Ottawa	23·85				1		100		2	
24	Oshawa	8·02		1				6		1	
25	Peterborough and Ashburnham										
26	Port Arthur Street	7·60		1				4			
27	Port Dalhousie, St. Catharines and Thorold Street	6·82				1		6		2	
28	Quebec Railway, Light and Power Co. (Citadel Division)	17·22				†2		63			
29	Sandwich, Windsor and Amherstburg	15·00		*1				25		5	
30	Schomberg and Aurora		15·00								
31	Sherbrooke Street	7·00				1		10			
32	Saint John, N.B	12·00		1				23			
33	Sarnia Street	4·50					*	4		2	
34	St. Thomas Street	5·84			*			8		2	2
35	Toronto Suburban	8·50		1				6			
36	Toronto and Mimico	5·87			*1			9			
37	Toronto Street	49·35		1				†482		204	
38	Toronto and Scarboro	5·07						4			
39	Winnipeg Street	13·00		1				54		16	
40	Woodstock, Thames Valley and Ingersoll	10·50		1				7			
41	Yarmouth	2·00		1				4		1	
		557·59	15·00	25	2	12	1	1,900		289	2

SESSIONAL PAPER No. 20

of Rolling Stock, for the Year ended June 30, 1902.

No. of Electric Locomotives owned.	No. of Baggage, Mail and Express Cars owned.	No. of Cattle and Box Freight Cars owned.	No. of Platform Cars owned.	No. of Tool Cars owned.	No. of Snow Ploughs owned.	No. of Snow Sweepers owned.	Number.	Remarks.
							1	Power furnished by Berlin Gas Co.
						1	2	
	3			2			3	For 15 months, from April 1, 1901, to June 30, 1902.
1			*2		1	1	4	*Trailers.
		1	1			1	5	
							6	
							7	
							8	*Power furnished by the Cataract Power Co.
		2	*4		1		9	*Trailers.
			*2			1	10	* "
						2	11	*Power furnished by the Cataract Power Co.
	1				2	1	12	
		1				2	13	
					1	1	14	*Includes 1 parlor car.
	2		5		1		15	
	1		*11	*2	1	2	16	*Trailers.
			*16	*3	2	19	17	* " †Includes 1 official car.
1			*2		2		18	* "
							19	*One sub-station.
	1		*2				20	*Trailers.
		1	15		1	1	21	
							22	*Power furnished by Niagara, St. Catharines and Toronto Ry.
	*3			†1		7	23	*Mail only. †Salt car.
	*1		*1			1	24	*Trailers.
							25	Not in operation. No return received.
				*2			26	*Trailers.
							27	
				*1	2	6	28	†Includes 1 sub-station. *Trailer.
					1		29	*Four stationary engines. For 8 months only, from Nov. 1, 1901, to June 30, 1902.
							30	
					1		31	
					3	2	32	
	†1					1	33	*Power rented. †Baggage.
					1		34	*Leased from St. Thomas Gas Co.
						1	35	
							36	*Rented (from return of 1901).
		*1	*2		2	12	37	*Trailers. †Includes 1 official car.
							38	
			*2			1	39	*Includes 1 trailer.
							40	
					1		41	
2¼	13	6	65	11	23	63		

No. 3.—Summary Statement of Characteristics of Electric

Number.	Name of Electric Railway.	Length of Line.				Length of Siding.	Weight per Yard.		Number of Ties to Mile.
		Completed. (Rails laid).	Under construction.	Iron Rails.	Steel Rails.		Iron Rails.	Steel Rails.	
							Lbs	Lbs.	
1	Berlin and Waterloo	3·02	....	....	3·02	....	....	45, 60 & 65	2640
2	Brantford Street.	5·90	..	....	5·90	.. .	....	40 & 56	1760
3	British Columbia .. .	42·25	...	....	42·25	.....	..	25,40,50,70 38,72 & 110	2640
4	Cornwall Street	6·00	.....	....	6·00	·50	...	56	....
5	Galt, Preston and Hespeler.	9·00	...	4·50	4·50	.....	56	56	2112
6	Guelph...	5·50	.....	....	5·50	·33	....	56 & 60	3168
7	Halifax Tramway ...	10·42	..	....	10·42	.....	....	80	....
8	Hamilton and Dundas	7·25	.....	....	7·25	.....	....	60	2600
9	Hamilton, Grimsby and Beamsville.	23·00	.....	....	23·00	....	....	56 & 65	2400
10	Hamilton Radial	12·00	....	....	12·00	·50	....	65	2640
11	Hamilton Street	22·00	.....	...	22·00	... .	....	60	2640
12	Hull	13·63	...	....	13·63	2·00	....	56	2640
13	Kingston, Portsmouth and Cataraqui	7·40	.....	....	7·40	.....	....	56 & 60	2600
14	London Street	18·32	..	....	18·32	. .	....	56, 65 & 73	2640
15	Metropolitan (Toronto)	28·00	.....	..	28·00	2·00	....	56	2600
16	Montreal Park and Island	24·05	.....	....	24·05	1·80	....	56	2640
17	Montreal Street	64·64	.....	....	64·64	8·97	..	56,60,72,83 84, 92 & 96	*880 2640
18	Montreal Terminal	14·10	.....	....	14·10	.....	....	56 & 65	2640
19	Nelson Tramway, B.C.	3·00	....	....	3·00	·08	....	45 & 60	2600
20	Niagara Falls, Park and River	13·68	.....	...	13·68	·89	....	56	2640
21	Niagara, St. Catharines and Toronto	17·79	.....	....	17·79	2·15	...	56	2640
22	Niagara Falls, Wesley Park and Clifton	4·50	.....	....	4·50	.....	....	60	2600
23	Ottawa	23·85	.....	....	23·85	.....	..	40, 52, 56 70 & 72	657 2104 2630
24	Oshawa	8·02	.. .	....	8·02	.....	....	64	2640
25	Peterborough and Ashburnham	. .	...	....	....	.....	....	.....	....
26	Port Arthur Street	7·60	.....	....	7·60	·13	....	42	2640
27	Port Dalhousie, St. Catharines and Thorold Street	6·82	....	....	6 82	.....	....	40 & 50	....
28	Quebec Railway, Light and Power Co. (Citadel Div)	17·22	.....	....	17·22	... .	....	56 & 72	2640
29	Sandwich, Windsor and Amherstburg	15·00	.....	....	15·00	·25	....	45,56,60,85	1800
30	Schomberg and Aurora	.....	15·00	....	.. ..	...	....	.....	....
31	Sherbrooke Street ...	7·00	.....	....	7·00	.. ...	....	60	2000
32	Saint John, N.B.	12·00	.....	....	12·00	. ...	....	74	2464
33	Sarnia Street	4·50	.. ..	....	4·50	·23	....	45, 56, 66	2112
34	St. Thomas Street . .	5·84	.....	....	5·84	·38	....	65	2640
35	Toronto Suburban..	8·50	.....	....	8·50	.....	....	56 & 72	....
36	Toronto and Mimico	5·87	...	....	5·87	·38	....	56	....
37	Toronto Street	49·35	.....	....	49·35	5·20	....	56,69,73,84	..
38	Toronto and Scarboro	5·07	.....	...	5·07	·09	....	56	....
39	Winnipeg Street	13·00	.....	....	13·00	.. ..	...	56 & 70	2000
40	Woodstock, Thames Valley and Ingersoll	10·50	.....	....	10·50	.....	...	56 & 65	2112
41	Yarmouth	2 00	...	....	2·00	.....	....	45	....
		557·59	15 00	4·50	553·09	25·88	....	.....	....

SESSIONAL PAPER No. 20

Railways, &c., for the Year ended June 30, 1902.

Nature of Rail Fastening.	No. of Level crossings		No. of overhead Bridges.	Height of overhead bridges above rail level.	Pub. r'ds. under crossings.	Level crossings of other Railways.	No. of Junctions with other Railways.	No. of Junctions with Branch Lines.	Radius of sharpest curve.	No. of feet per mile of heaviest gradient.	Gauge of Railway.	Number.	Remarks.
	Guarded.	Not Guarded.											
				Ft.					Ft.				
Fish plates	†2					2			†40	†209	†4·8½	1	†From last year's return.
"						4			30	253	4·8½	2	
Fish plates and angle bars.					1	5	1		27	630	4·8½	3	Double track 7·50 miles.
Fish plates									50	100	4·8½	4	For 15 mos. from April
"		3				1	1		72	264	4·8½	5	1, 1901 to June 30, 1902.
"						1	2		64	396	4·8½	6	
									30	581	4·8½	7	Double track 1·58 miles,
Angle bars			1	14 6		2	2		38	158	4·8½	8	from last year's return.
Fish plates and angle bars.		35				2	1		127	211	4·8½	9	
Angle bars	2	2	2	16·0		5	2		105	158	4·8½	10	
Fish plates						4	1		40	370	4·8½	11	Double track, 10·50 miles.
"		7				4	2	3	193	264	4·8½	12	Double track, 6 85 miles.
Angular fish plates									35	264	4·8½	13	
Angle bars						4			35		4·8½	14	Double track 11·68 miles,
"		40	1	22·1					38	455	4·8½	15	from last year return.
Fish plates and angle bars.					1	5	4		50	264	4·8½	16	Double track, 13·00 miles.
Fish plates, angle bars, Weber patented joints and welded joints			4	29·6	1	15	6		40	634	4·8½	17	Double track, 38·79 miles.
Angle plates		11				5	1	3	88	26	4·8½	18	*Steel.
Fish plates									60	686	4·8½	19	
Standard angle bar plates	1	16	2	14 0 / 22·0			2	1	115	300	4·8½	20	Double track, 11·43 miles.
Continuous rail joints		35	3	22·0	6	2	2		50	182	4·8½	21	
" "	1	19				1	2		50	150	4·8½	22	
Fish plates, angle bars and cast welding			1	17·0		5	2		35	422	4·8½	23	Double track, 18·28 miles.
Angle iron		28				1	1		80	211	4·8½	24	
												25	Not in operation. No
Fish plates						1			30	2	4·8½	26	return received.
Continuous rail joints		25	2	25·0		1	1	1	50	200	4·8½	27	
Plain and angle fish plates	2					2			35	75	4·8½	28	
Fish plates									45	5	4·8½	29	Double track, ·50 miles.
												30	For 8 mos. only, from
Fish plates						2			60	739	4·8½	31	Nov. 1, 1901 to June 30,
Heavy angle bars, 6 bolts						1			10	475	4·8½	32	1902.
Fish plates						1					4·8½	33	
Angle plates						4			45	264	4·8½	34	
						2	1		35	412	4·10½	35	
									65	264	4·10½	36	
						2	2		40	264	4·10½	37	Double track, 43·55 miles.
							1		65	211	4·10½	38	
Angles						5			35	1	4·8½	39	Double track, 5·00 miles.
Fish plates and bolts		5							50	200	4·8½	40	
Angle irons and fish plates	1										4 3	41	
	9	226	16		9	89	37	8					

No. 4.—Summary Statement of the Operations of the

Number.	Name of Electric Railway.	Mileage.	Train Mileage.			Locomotive Mileage.
			Passenger Cars.	Freight Cars.	Total Car Mileage.	
1	Berlin and Waterloo	3·02	73,820	.....	73,820	.....
2	Brantford Street	5·99	200,000	.....	200,000	.....
3	British Columbia	42·25	1,966,651	27,976	1,994,627	.....
4	Cornwall Street	6·00	162,356	5,746	168,102	.....
5	Galt, Preston and Hespeler	9·00	72,200	12,100	84,300	.....
6	Guelph	5·50	195,300	500	195,800	.....
7	Halifax Tramway	10·42	585,500	.....	585,500	.....
8	Hamilton and Dundas	7·25	71,972	.....	71,972	.....
9	Hamilton, Grimbsy and Beamsville	23·00	229,298	.....	229,298	.....
10	Hamilton Radial	12·00	297,677	.....	297,677	.....
11	Hamilton Street	22·00	1,286,686	.....	1,286,686	.....
12	Hull	13·63	405,556	17,008	422,564	17,008
13	Kingston, Portsmouth and Cataraqui	7·40	96,011	.....	96,011	.....
14	London Street	18·32	1,288,684	.....	1,288,684	.....
15	Metropolitan (Toronto)	28·00	250,000	.....	250,000	.....
16	Montreal Park and Island	24·05	687,369	12,786	700,155	.....
17	Montreal Street	64·64	10,624,453	.....	10,624,453	.....
18	Montreal Terminal	14·10	215,505	14,678	230,183	12,157
19	Nelson Tramway, B.C.	2·65	52,050	.....	52,050	.....
20	Niagara Falls Park and River	13·68	431,855	1,080	432,935	.....
21	Niagara, St. Catharines and Toronto	17·79	194,220	22,000	216,220	22,000
22	Niagara Falls, Wesley Park and Clifton	4·50	118,681	.....	118,681	.....
23	Ottawa	23·85	2,122,087	.....	2,122,087	.....
24	Oshawa	8·02	41,068	17,173	58,241	.....
25	Port Arthur Street	7·60	77,000	.....	77,000	.....
26	Port Dalhousie, St. Catharines and Thorold St.	6·82	284,700	.....	284,700	.....
27	Quebec Ry., Light and Power Co. (Citadel Div.)	17·22	1,112,361	.....	1,112,361	.....
28	Sandwich, Windsor and Amherstburg	15·00	290,000	.....	290,000	.....
29	Sherbrooke Street	7·00	.....	.....	.....	.....
30	St. John, N.B.	12·00	445,584	.....	445,584	.....
31	Sarnia Street	4·50	82,632	.....	82,632	.....
32	St. Thomas Street	5·84	.....	.....	.....	.....
33	Toronto Suburban	8·50	131,400	.....	131,400	.....
34	Toronto and Mimico	5·87	165,560	.....	165,560	.....
35	Toronto Street	49·35	10,084,904	.....	10,084,904	.....
36	Toronto and Scarboro	5·07	158,556	.....	158,556	.....
37	Winnipeg Street	13·00	1,032,199	.....	1,032,199	.....
38	Woodstock, Thames Valley and Ingersoll	10·50	93,779	.....	93,779	.....
39	Yarmouth	2·00	75,120	.....	75,120	.....
		557·24	35,702,794	131,047	35,833,841	51,165

SESSIONAL PAPER No. 20

Year and Mileage, for the Year ended June 30, 1902.

Total Number of Passengers Carried.	Tons of Freight of 2,000 lbs., Handled.	Average Rate of Speed of Passenger Cars. Miles per Hour.	Average Rate of Speed of Freight Cars. Miles per Hour.	Number.	Remarks.
352,500		7		1	
287,414		8		2	
7,670,468	6,109	9	8	3	For 15 months from Apr. 1, 1901 to June 30,
260,259		12	5	4	1902.
277,236	24,935	10	6	5	
345,847				6	
2,540,000				7	
282,324	1,080	14		8	
338,696	6,621	15	12	9	
525,315	1,900	25		10	
3,845,789		12		11	
632,256	53,620	25	20	12	
591,150		9	5	13	
3,744,469		8		14	
464,104	800	20		15	
1,384,520	11,165	15	10	16	
48,858,373		8		17	
379,575	21,774	20	12	18	
107,415		10		19	Also 0·35 miles not in operation.
1,650,464	5,400	9	7	20	
553,184	79,337	25	15	21	
333,536		8		22	
6,988,370		8		23	
119,706	53,441			24	
343,528		15		25	
246,024		8		26	
4,192,799		8		27	
914,781				28	For 8 months only, from Nov. 1, 1901 to June
60,000		15		29	30, 1902.
1,771,522		8		30	
357,520				31	
232,381				32	
386,442		9		33	
428,042				34	
41,689,258				35	
363,031				36	
3,845,668		10		37	
140,034		15		38	
177,402		8		39	
137,681,402	266,182				

No. 5.—SUMMARY STATEMENT of Description of Freight

Number.	Name of Electric Railway.	Mileage.	Flour.		Grain.		Live Stock.	
			Barrels.	Tons.	Bushels.	Tons.	No.	Tons.
1	Berlin and Waterloo	3·02						
2	Brantford Street	5·90						
3	British Columbia	42·25						
4	Cornwall Street	6·00						
5	Galt, Preston and Hespeler	9·00	14,080	3,414	39,688	1,200	164	88
6	Guelph	5·50						
7	Halifax Tramway	10·42						
8	Hamilton and Dundas	7·25						
9	Hamilton, Grimsby and Beamsville	23·00			6,050	181		
10	Hamilton Radial	12·00	50	5	5,000	100		
11	Hamilton Street	22·00						
12	Hull	13·63	85,471	8,423	528,327	11,070	8,634	940
13	Kingston, Portsmouth and Cataraqui	7·40						
14	London Street	18·32						
15	Metropolitan (Toronto)	28·00						
16	Montreal Park and Island	24·05	770	77				
17	Montreal Street	64·64						
18	Montreal Terminal	14·10	620	62			60	41
19	Nelson Tramway, B.C.	2·65						
20	Niagara Falls Park and River	13·68						
21	Niagara, St. Catharines and Toronto	17·79	17,434	1,744	42,026	712	30	15
22	Niagara Falls, Wesley Park and Clifton	4·50						
23	Ottawa	23·85						
24	Oshawa	8·02	1,420	142	60,581	1,666	25	10
25	Port Arthur Street	7·60						
26	Port Dalhousie, St. Catharines and Thorold Street	6·82						
27	Quebec Railway, Light and Power Co. (Citadel Division)	17·22						
28	Sandwich, Windsor and Amherstburg	15·00						
29	Sherbrooke Street	7·00						
30	St. John, N.B.	12·00						
31	Sarnia Street	4·50						
32	St. Thomas Street	5·84						
33	Toronto Suburban	8·50						
34	Toronto and Mimico	5·87						
35	Toronto Street	49·35						
36	Toronto and Scarboro	5·07						
37	Winnipeg Street	13·00						
38	Woodstock, Thames Valley and Ingersoll	10·50						
39	Yarmouth	2·00						
		557·24	119,845	13,867	681,672	14,929	8,913	1,094

Carried, for the Year ended June 30, 1902.

Lumber of all kinds except Firewood.		Firewood.		Manufactured Goods.	All other Articles.	Total Weight Carried.	Number.	Remarks.
Feet.	Ton	Cords.	Tons.	Tons.	Tons.	Tons.		
							1	
							2	
					6,109	6,109	3	For 15 months from April 1,
							4	1901, to June 30, 1902.
290,000	590	55	100	10,943	8,600	24,935	5	
							6	
							7	
				100	980	1,080	8	
					6,440	6,621	9	
93,750	125				1,670	1,900	10	
							11	
17,361,576	25,966	90	135	5,079	2,007	53,620	12	
							13	
							14	
					800	800	15	
					11,088	11,165	16	
							17	
1,250,250	1,667			9,396	10,608	21,774	18	
							19	Also 0·35 miles not in operation.
					5,400	5,400	20	
1,598,764	4,069	312	577	13,564	58,656	79,337	21	
							22	
							23	
3,296,571	5,769	961	1,442	13,287	31,125	53,441	24	
							25	
							26	
							27	
							28	
							29	
							30	
							31	
							32	
							33	
							34	
							35	
							36	
							37	
							38	
							39	
23,890,911	38,186	1,418	2,254	52,369	143,483	266,182		

No. 6.—Summary Statement of Earnings

Number.	Name of Electric Railway.	Mileage.	Passenger Traffic.	Freight Traffic.	Mails and Express Freight.
			$ cts.	$ cts.	$ cts.
1	Berlin and Waterloo	3·02	14,798 36		584 64
2	Brantford Street	5·90	12,819 10		
3	British Columbia	42·25	395,950 82	17,247 20	600 00
4	Cornwall Street	6·00	11,989 75	4,639 96	250 00
5	Galt, Preston and Hespeler	9·00	17,171 28	8,549 83	
6	Guelph	5·50	14,534 90	789 73	
7	Halifax Tramway	10.42	137,195 18		
8	Hamilton and Dundas	7 25	24,223 45	1,580 99	53 88
9	Hamilton, Grimsby and Beamsville	23·00	38,364 99	6,529 46	2,194 38
10	Hamilton Radial	12·00	38,686 60	2,181 95	56 86
11	Hamilton Street	22·00	158,359 46		
12	Hull	13 63	44,054 65	12 126 72	600 00
13	Kingston, Portsmouth and Cataraqui	7·40	26,161 13	1,217 24	
14	London Street	18·32	134,321 63		640 00
15	Metropolitan (Toronto)	28·00	60,486 36	5,656 06	2,000 00
16	Montreal Park and Island	24·05	124,976 77	2,986 47	
17	Montreal Street	64·64	1,963,936 41		
18	Montreal Terminal	14·10	35,978 51	4,114 53	500 00
19	Nelson Tramway, B.C	2·65	5,946 20		
20	Niagara Falls, Park and River	13·68	228,813 48	1,254 50	111 97
21	Niagara, St. Catharines and Toronto	17·79	59,650 84	29,267 86	700 91
22	Niagara Falls, Wesley Park and Clifton	4·50	15,428 61		
23	Ottawa	23·85	295,341 97		4,000 00
24	Oshawa	8·02	6,701 16	26,789 10	1,804 86
25	Port Arthur Street	7·60	16,093 80		
26	Port Dalhousie, St. Catharines and Thorold Street	6·82	16,019 62		
27	Quebec Railway, Light and Power Co. (Citadel Division)	17 22	178,360 98		750 00
28	Sandwich, Windsor and Amherstburg	15·00	37,469 57		268 00
29	Sherbrooke Street	7·00	26,500 00		
30	Saint John, N.B	12·00	81,068 08		
31	Sarnia Street	4·50	13,641 88	2,985 53	591 25
32	St. Thomas Street	5·84	9,240 74		
33	Toronto Suburban	8·50	14,051 92		
34	Toronto and Mimico	5·87	23,268 72		
35	Toronto Street	49·35	1,717,676 30		
36	Toronto and Scarboro'	5·07	14,167 65		
37	Winnipeg Street	13·00	158,295 87		
38	Woodstock, Thames Valley and Ingersoll	10·50	16,506 50		245 95
39	Yarmouth	2·00	7,662 40		
		557·24	6,195,915 64	127,917 13	15,952 70

SESSIONAL PAPER No. 20

for the Year ended June 30, 1902.

Other Sources.	Total Gross Earnings.	Total Net Earnings.	Proportion of Earnings to Working Expenses.	Earnings per Car Mile.	Number.	Remarks.
$ cts.	$ cts.	$ cts.	p. c.	Cts.		
230 15	15,613 15	2,683 83	121	21·15	1	
8,115 25	20,934 35	— 10,693 53	66	10·47	2	
125 00	413,923 02	124,241 80	143	20·75	3	For 15 months from April 1, 1901, to June 30, 1902
614 37	17,494 08	— 2,806 36	86	10·41	4	
506 46	26,227 57	5,547 39	127	31·11	5	
.....	15,324 63	2,136 77	116	7 83	6	
521 77	137,716 95	40,350 95	141	23·52	7	
5,328 34	31,186 66	16,510 43	213	43·32	8	
1,643 26	48,732 09	24,089 09	198	21·25	9	
1,266 28	42,191 69	18,508 76	178	14·17	10	
4,211 13	162,570 59	67,649 78	171	12·64	11	
17,981 89	74,763 26	25,068 60	150	17·70	12	
10,969 21	38,347 58	13,780 72	156	39·94	13	
6,883 96	141,845 59	57,288 64	168	11·01	14	
672 50	68,814 92	38,418 67	226	27·53	15	
872 97	128,836 21	13,093 40	111	18·40	16	
26,898 15	1,990,834 56	880,143 99	179	18·74	17	
3,467 38	44,060 42	19,947 90	183	19·14	18	
357 55	6,303 75	— 16,026 22	28	12·12	19	Also 0·35 miles not in operation.
27,912 29	258,092 24	190,030 05	379	59·62	20	
1,809 76	91,429 37	22,496 01	133	42·29	21	
.....	15,428 61	5,751 29	159	13·00	22	
327 87	299,669 84	114,101 93	161	14·12	23	
1,446 95	36,742 07	11,314 88	145	63·09	24	
218 39	16,312 19	3,149 91	124	21·08	25	
.....	16,019 62	4,625 24	141	5·62	26	
.....	179,110 98	52,098 50	141	16·10	27	
106 50	37,844 07	14,799 65	164	13·05	28	For 8 months only, from Nov. 1, 1901, to June 30, 1902.
.....	26,500 00	10,375 00	165	*	29	*No mileage given.
.....	81,068 08	23,068 08	140	18·19	30	
3,174 32	20,392 98	3,960 62	124	24·68	31	
438 23	9,678 97	— 3,846 68	72	*	32	*No mileage given.
681 00	14,732 92	— 1,285 32	92	11·21	33	
.....	23,268 72	9,681 79	171	14·05	34	
16,267 30	1,733,943 60	833,432 35	192	17·19	35	
.....	14,167 65	4,151 68	141	8·94	36	
1,009 26	159,305 13	60,034 23	160	15·43	37	
422 45	17,174 90	7,929 79	186	18·31	38	
2,172 95	9,835 35	— 2,220 60	82	13·10	39	
146,652 89	6,486,438 36	2,683,583 01	.....	.....	....	

No. 7.—Summary Statement of Operating

Number.	Name of Electric Railway.	Mileage	Maintenance of Line Buildings, &c.	Working and Repairs of Engines.	Working and Repairs of Cars.
			$ cts.	$ cts.	$ cts.
1	Berlin and Waterloo	3·02	893 29		944 60
2	Brantford Street	5·90	1,325 46	12,230 28	4,507 74
3	British Columbia	42 25	32,379 99		25,771 85
4	Cornwall Street	6·00	1,501 61	2,704 61	
5	Galt, Preston and Hespeler	9·00	4,113 07	8,384 52	
6	Guelph	5·50	976 65	4,976 54	675 92
7	Halifax Tramway	10·42	97,366 00		
8	Hamilton and Dundas	7·25	2,179 60	2,407 54	1,633 67
9	Hamilton, Grimsby and Beamsville	23·00	4,589 00	5,698 00	2,999 00
10	Hamilton Radial	12·00	2,701 40	6,637 21	2,147 37
11	Hamilton Street	22·00	4,091 29	21,942 81	7,381 81
12	Hull	13·63	7,331 05	1,482 07	5,776 52
13	Kingston, Portsmouth and Cataraqui	7·40	837 01		2,770 04
14	London Street	18·32	1,646 00	18,003 44	8,739 32
15	Metropolitan (Toronto)	28·00	1,321 01	26,157 22	
16	Montreal Park and Island	24·05	10,268 67	34,083 71	22,572 73
17	Montreal Street	64 64	139,669 70	215,490 43	155,918 82
18	Montreal Terminal	14·10	1,110 24	8,852 14	1,085 68
19	Nelson Tramway, B.C	2·65	1,238 34	8,105 87	2,346 27
20	Niagara Falls Park and River	13·68	11,180 96	6,265 86	3,883 61
21	Niagara, St. Catharines and Toronto	17·79	10,042 89	6,393 76	2,531 67
22	Niagara Falls, Wesley Park and Clifton	4·50	1,361 97		276 20
23	Ottawa	23·85	29,126 11	8,599 33	30,299 43
24	Oshawa	8·02	5,379 83	7,360 86	2,492 20
25	Port Arthur Street	7·60	2,930 33	4,952 22	4,178 72
26	Port Dalhousie, St. Catharines and Thorold Street	6·82	831 26	1,423 47	437 25
27	Quebec Railway, Light and Power Co. (Citadel Division)	17·22	20,775 39	73,172 92	8,439 05
28	Sandwich, Windsor and Amherstburg	15·00	1,672 82	5,648 14	2,762 05
29	Sherbrooke Street	7·00	12,425 00		900 00
30	St. John, N.B	12·00	13,500 00	10,000 00	25,500 00
31	Sarnia Street	4·50	770 30		241 85
32	St. Thomas Street	5·84			959 60
33	Toronto Suburban	8·50	341 05	4,016 38	3,814 53
34	Toronto and Mimico	5·87	13,586 93		
35	Toronto Street	49 35			
36	Toronto and Scarboro	5·07			10,015 97
37	Winnipeg Street	13·00	5,860 53	28,533 58	11,450 28
38	Woodstock, Thames Valley and Ingersoll	10·50	303 64	4,537 81	437 70
39	Yarmouth	2·00	208 74	3,027 17	
		557·24	445,837 13	541,087 89	353,891 45

SESSIONAL PAPER No. 20

Expenses for the Year ended June 30, 1902.

General Operating Expenses.	Total.	Cost of Operating per Train Mile.	Number.	Remarks.
$ cts.	$ cts.	Cts.		
11,091 43	12,929 32	17·51	1	
13,564 40	31,627 88	15·81	2	
231,529 38	289,681 22	14·52	3	For 15 months from April 1, 1901, to June 30, 1902.
16,094 22	20,300 44	12·08	4	
8,182 59	20,680 18	24·53	5	
6,558 75	13,187 86	6·74	6	
.....	97,366 00	16·63	7	
8,455 42	14,676 23	20·39	8	
11,357 00	24,643 00	10·75	9	
12,196 95	23,682 93	7 96	10	
61,504 90	94,920 81	7·38	11	
35,105 02	49,694 66	11·76	12	
20,959 81	24,566 86	25·59	13	
56,168 19	84,556 95	6·56	14	
2,918 02	30,396 25	12·16	15	
48,817 70	115,742 81	16·53	16	
599,611 62	1,110,690 57	10·45	17	
13,064 46	24,112 52	10·47	18	
10,639 49	22,329 97	42·94	19	Also 0·35 miles not in operation.
46,731 76	68,062 19	15·72	20	
49,965 04	68,933 36	31·88	21	
8,039 15	9,677 32	8·15	22	
117,543 04	185,567 91	8·74	23	
10,194 30	25,427 19	43·66	24	
1,101 01	13,162 28	17·09	25	
8,702 40	11,394 38	4·00	26	
24,625 12	127,012 48	11·42	27	
12,961 41	23,044 42	7·95	28	For 8 months only, from Nov. 1, 1901, to June 30, 1902.
2,800 00	16,125 00	*	29	* No mileage given.
9,000 00	58,000 00	13·02	30	
15,420 21	16,432 36	19·89	31	
12,566 05	13,525 65	*	32	* No mileage given.
7,846 28	16,018 24	12·19	33	
.....	13,586 93	8·21	34	
900,511 25	900,511 25	8·93	35	
.....	10,015 97	6 32	36	
53,426 51	99,270 90	9·62	37	
3,965 96	9,245 11	9·86	38	
8,820 04	12,055 95	16·05	39	
2,462,038 88	3,802,855 35			

No. 8.—Summary of Accidents for

Number.	Name of Electric Railway.	Mileage	Passengers, Employés or Others.	Fell from Cars.		Jumping on or off Cars.		Putting arms or heads out of Windows.	
				Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1	British Columbia	42·25	Passengers		1				
			Employés		1				
			Others						
2	Halifax Tramway	10·42	Employés						
			Others						
3	Hamilton and Dundas	7·25	Passengers		1				
4	Hamilton, Grimsby and Beamsville	23·00	Employés						
5	Hamilton Radial	12·00	Passengers		5		1		
6	Hamilton Street	22·00	Passengers		30				
7	London Street	18·32	Passengers	1	55				1
			Employés						
8	Metropolitan (Toronto)	28·00	Passengers						
			Employés						
9	Montreal Park and Island	24·05	Passengers		2				
			Others						
10	Montreal Street	64·64	Passengers	1	74				
			Employés		1				
			Others						
11	Nelson Tramway, B.C.	2·65	Passengers	1					
12	Niagara Falls Park and River	13·68	Others						
13	Niagara, St. Catharines and Toronto	17·79	Others						
14	Ottawa	23·85	Passengers		4		24		
			Employés	1	2				
15	Port Arthur Street	7·60	Passengers						
			Others						
16	Port Dalhousie, St. Catharines and Thorold Street	6·82	Others						
17	Quebec Railway, Light and Power Co. (Citadel Division)	17·22	Others						
18	Saint John, N.B.	12·00	Passengers				21		
19	Toronto and Mimico	5·87	Passengers						
20	Toronto Street	49·35	Passengers		5	1	62		
			Employés		4				1
			Others						
21	Winnipeg Street	13·00	Passengers		1				
			Others						
22	Woodstock, Thames Valley and Ingersoll	10·50	Others						
				4	186	1	108	...	2

the Year ended June 30, 1902.

Coupling Cars.		Collisions or by Trains thrown from Track.		Struck by Engine or Cars on Highway Crossings.		Walking, standing, lying or being on Track.		Striking Bridges.		Other Causes		Totals.		Number.
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
						1					2	1	3	
													1	1
							3						3	
					1								1	2
				2	4							2	4	
													1	3
	1												1	4
					3								9	5
				1	13						4	1	47	6
			1		7	1	19					2	83	7
								1				1		
			11								1		12	8
					1								1	
													2	9
						1	2					1	2	
												1	74	
													1	10
							23			11	9	11	32	
												1		11
							1						1	12
				3	1							3	1	13
			2		4	1	12				1	1	47	14
											1	1	3	
											1		1	15
					1								1	
						1						1		16
						1						1		17
											1		22	18
											1		1	19
			19								22	1	108	
	8		5								6		24	20
		1	26			2	25				21	3	72	
													1	21
					3								3	
							1						1	22
	9	1	64	6	38	8	86	1		11	70	32	563	

INDEX

	Part.	Page.
A		
Accidents and casualties :—		
Coal and Iron Mining Companies	VI	72
Electric Railways	VI	112
Intercolonial	I	108
Prince Edward Island Railway	I	130
Steam Railways	VI	8
Annapolis and Digby Railway, expenditure on construction	II	40
Accountant and Treasurer, I.C.R., Statements	I	66
Windsor Branch	I	119
Accountant and Auditor of P.E.I. Ry., Statements of the	I	131
Accountant of Department, Statements of the	II	3
Collectors of Canal Tolls in account with Revenue	II	30
Expenditure during fiscal year	II	3
" on construction, maintenance, &c., of canals	II	5
" on construction and enlargement of canals	II	27
Baie Verte Canal	II	6
Beauharnois Canal	II	8
Carillon and Grenville Canal	II	17
Chambly Canal	II	21
Cornwall Canal	II	12
Culbute Canal and Dam	II	18
Lachine Canal	II	7
Lake St. Francis	II	11
Lake St. Louis	II	10
Murray Canal	II	22
Rideau Canal	II	19
Sault Ste. Marie Canal	II	25
Soulanges Canal	II	26
Ste. Anne's Lock and Canal	II	16
St. Lawrence River and Canals, Surveys, &c.	II	9
St. Ours Lock	II	20
St. Peter's Canal	II	5
Tay Canal	II	24
Trent Canal	II	23
Welland Canal	II	15
Williamsburg Canals	II	13
Hydraulic and other rents	II	29
Miscellaneous expenditure	II	45
Railway expenditure and revenue	II	43
Annapolis and Digby	II	40
Canadian Pacific	II	39
Cape Breton	II	35
Carleton Branch	II	34
Drummond County	II	41
Eastern Extension	II	33
Intercolonial	II	32
Montreal and European Short Line	II	37
Oxford and New Glasgow	II	36
Prince Edward Island	II	38
Yukon Territory Works	II	42
Railway expenditure on Capital Account	II	43
Recapitulation—Railways	II	44
" Railways and Canals	II	45
Revenue received from canals	II	28, 30
Subsidies voted for railways	II	47
B		
Baie Verte Canal, expenditure on surveys	II	6
Beauharnois Canal :—		
Description of Canal	I	17
Expenditure	II	8
Operation and maintenance	I	50

	Part.	Page.
C		
Beauharnois Canal—*Concluded.*		
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	156
Water on mitre sill	I	162
Boyd, Mr. J. *See* 'Sault Ste. Marie'	I	143
Buoys in St. Lawrence River and Canals	I	187
Burpee, Mr. T. C., Engineer of Maintenance, Windsor Branch	I	121
" " " I. C. Ry.	I	77
Canadian Pacific Railway Co.—Expenditure on construction	II	39
Canal navigation routes, descriptions of	I	5
Canals Revenue	II	28, 30
Canal Statistics :—		
Average canal freights	V	20
Average freight charges per bushel	V	22
Average lake freights	V	18
Canal freights, Buffalo to New York	V	20
Chief Engineer's Report—Reference to	I	55
Commerce through St. Mary's Falls and Sault Ste. Marie Canals	V	14
Comparison of various United States routes	V	11
Exports by lake from Chicago	V	15
Foreign carrying trade	V	27
Foreign freight rates	V	23
Foreign merchandise transported in trade of U.S. with British North America	V	29
Freight, tolls, elevating and storage rates compared	V	21
Freight passed through Welland	V	8
" " St. Lawrence	V	8
Freight rates	V	13
Freight from United States ports to United States ports	V	9
Grain shipments	V	15
Grain freights by lake	V	16
Grain by lake from Chicago	V	15
Grain to seaboard by competing routes	V	6
Lake freights from Chicago to Buffalo	V	17
Lake freights, Duluth to Buffalo	V	18
Lake freights, Toledo to Buffalo	V	19
Lake freights on coal from Buffalo to Chicago, &c.	V	24
Merchandise from British North America for transit to United States	V	25
Merchandise from foreign countries for transit to United States	V	26
Rates, Chicago to Buffalo	V	13
Revenue	V	3
Through traffic between Montreal and ports on Lake Erie	V	9
Total quantity of freight passed through the canals	V	10
Traffic by railways and canals via State of New York	V	12
Transhipment of grain	V	7
Value of Imports and Exports of U. S.	V	27
Vegetable food carried to tide-water by New York	V	12
C. Tonnage of certain articles through all the canals of New York	V	30
D. " " " the Welland Canal	V	32
E. " cleared at Buffalo and Tonawanda through the Erie Canal	V	34
" " Oswego through the Erie Canal	V	35
F. " " downwards on the Welland Canal	V	36
G. " through the Welland Canal in transit between ports in United States	V	37
H. " of vegetable food carried on each of the lines of canals, and the two principal railways competing for the carrying trade	V	38
I. Statement of freight passed down the Welland Canal in Canadian and United States Vessels	V	39
Statement of freight passed up the Welland Canal in Canadian and United States Vessels	V	43
Welland Canal, through freight recapitulation	V	44
Statement of Up and Down Freight on the Welland Canal	V	44
J. Statement of large class of Vessels lightened at Port Colborne	V	45
K. " Freight passed Eastward from Lake Erie to Montreal	V	47
L. " " Westward from Montreal to Lake Erie	V	49
M. " " Eastward through the Welland Canal from United States to United States Ports	V	51

	Part.	Page.
C		
CANAL Statistics—*Concluded.*		
N. Vessels and their Cargoes of Grain from Ports west of Port Colborne to Montreal, quantity transhipped at Kingston and Prescott, and quantity taken to Montreal	V	53
Recapitulation of Statement N	V	54
O. Quantity of Grain passed down the Welland Canal to Kingston and Prescott in Canadian and United States Vessels	V	55
P. Total quantity of Grain arrived at Kingston and Prescott in Vessels passed down Welland Canal	V	56
Q. Comparative Statement of Quantity of Grain to Kingston and Prescott	V	57
R. Number of vessels, tonnage, passengers and freight passed down rapids of St. Lawrence	V	57
S. Statement of Coal passed through the Welland Canal	V	58
T. " " St. Lawrence Canal	V	58
U. Statement of quantity of Freight passed down the Welland Canal to Montreal, quantity to Ontario Ports and quantity to United States Ports	V	59
Recapitulation of Statement U	V	71
Comparative Statement of Revenue on all the Canals for years 1900 and 1901	V	76
" " Vegetable Food and Lumber for years 1900 and 1901	V	74
Statistics of Canal Traffic	V	78
1. Welland, details of traffic	V	78
2. " through traffic	V	82
3. " way "	V	86
4. St. Lawrence, details of traffic	V	90
5. " through traffic	V	94
6. " way "	V	98
7. Ottawa, details of traffic	V	102
8. Chambly "	V	106
9. Rideau "	V	109
10. St. Peter's "	V	112
11. Trent Valley "	V	115
12. Murray "	V	118
13. Sault Ste. Marie "	V	121
14. Traffic on all canals according to classes	V	124
15. Summary of traffic on canals	V	130
16. Amount of tolls accrued each month on all canals	V	136
17. Number, tonnage and nationality of vessels passed through all canals	V	138
Recapitulation " "	V	142
18. Comparative statement of grand total freight passed through all canals	V	143
19. Number and tonnage of vessels passed through Welland	V	144
20. " " " St. Lawrence canals	V	146
21. " " " Rideau, Ottawa and Chambly	V	148
22. Classified tonnage of vessels through canals	V	149
23. Consolidated tariff of tolls	V	150
CAPE BRETON RY., expenditure on construction	II	35
CARDINAL Section of Williamsburg Canals	I	183
CARILLON Canal :—		
Description of canal	I	12
Expenditure	II	17
Operation and maintenance	I	50
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	158
Water on mitre sill	I	164
CARLETON Branch Ry., expenditure on construction	II	34
CHAMBLY Canal :—		
Description of route	I	15
Expenditure	II	21
Operation and maintenance	I	48, 156
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	156
Water on mitre sill	I	162
CHIEF ACCOUNTANT of the Intercolonial Ry., Statements of the	I	66
Windsor Branch	I	118
CHIEF ENGINEER, Report of the :—		
Accidents on railways during year	I	56
Beauharnois Canal, operation and maintenance	I	50
Buoys on St. Lawrence River and Canals	I	43
Canal Statistics	I	55
Carillon and Grenville Canal, operation and maintenance	I	50
Chambly Canal, operation and maintenance	I	48

	Part.	Page.
C		
CHIEF ENGINEER—*Concluded.*		
Cornwall Canal, enlargement	I	38
Operation and maintenance	I	47
Dates of closing and opening of canals	I	53
Electric Railway Statistics, Summary of Tables	I	57
Expenditure on construction and enlargement of canals	I	44
On maintenance and operation of canals	I	52
Farran's Point Canal enlargement	I	39
Freight passed through each canal	I	52
Galops Canal, enlargement	I	39
Improvements	I	43
Grenville Canal, enlargement	I	41
Inclosures	I	18
Intercolonial Railway	I	19
Lachine Canal, enlargement	I	38
Operation and maintenance	I	46
Lake St. Francis channel	I	42
Lake St. Louis channel, construction	I	42
Length of railways in Dominion	I	56
Murray Canal, operation and maintenance	I	50
North Channel, dam	I	43
Operations on Government Railways	I	19
Plans and sections of locks on canals	I	34
Prince Edward Island Railway	I	32
Railway Committee of the Privy Council, decisions	I	54, 201
Railway Statistics, summary of Tables	I	56
Subsidies	I	53
Railways under Government control	I	19
Rapide Plat Canal, enlargement	I	39
Rideau Canal, operation and maintenance	I	51
River reaches, improvements	I	42
Rolling stock owned by railways	I	56
Sault Ste. Marie construction	I	36
Operation and maintenance	I	48
Soulanges Canal construction	I	36
Operation and maintenance	I	46
Steam Railway Statistics, summary of	I	56
St. Anne's Lock, operation and maintenance	I	49
St. Lawrence River and Lake improvement	I	42
St. Ours Lock, operation and maintenance	I	49
St. Peter's Canal " "	I	52
Trent Valley Canal, construction	I	37
Operation and maintenance	I	51
Vessels and tonnage which passed through the canals	I	52
Welland Canal, operation and maintenance	I	48
Improvements	I	40
Williamsburg Canals, operation and maintenance	I	47
Windsor Branch Railway	I	30
CHIEF ENGINEER of the Intercolonial Railway, Report of the	I	90
CORNWALL Canal :—		
Construction and enlargement	I	38, 178
Description of works	I	8
Expenditure	II	12
Fines and damages	I	191
Operation and maintenance	I	47
Superintendent Engineer, Report of	I	178, 188
Water on mitre sills	I	192
CULBUTE Canal, Expenditure	II	18
D		
DECISIONS of Railway Committee of Privy Council	I	201
DEPUTY Minister, Report of the	.....	ix
Canals	....	xliv
Electric Railways, statistics relating to	.....	ix
Expenditure on Railways	....	x
" Canals	...	xliv
Government action as to subsidized railways	.....	xix

	Part.	Page.
D		
DEPUTY MINISTER—*Concluded.*		
Government Railways in operation		xii
Intercolonial		xiii
Prince Edward Island		xvi
Windsor Branch		xv
Land Subsidies		xliv
Maps to accompany same (in separate pocket)		
Revenue from Government works		ix
Subsidized Railways		xviii
Steam Railways, statistics relating to		x
Survey for a Railway to give access to the Yukon		xv
Subsidy contracts during 1901–2		xvii
Subsidy payments during 1901–2		xix
DEVEREAUX, Mr. J. H. *See* "St. Peter's Canal"	I	198
DRUMMOND COUNTY Railway :—		
Capital account	I	30
Expenditure	II	41
DEVLIN, Mr. R. *See* "Canal Statistics"	V	3
E		
EASTERN Extension Railway, expenditure on construction	II	33
ELECTRIC Railways, statistics relating to	VI	91
ENGINEER of Maintenance, Windsor Branch, Report of the	I	121
" " Intercolonial Ry. "	I	77
EXPENDITURE on canal works generally	II	5
F		
FARRAN'S POINT Canal :—		
Construction and enlargement	I	39
Description of canal	I	9
Maintenance	I	189
Superintending Engineer, Report of the	I	180
FRIPP, Mr. F. B., *See* "Sault Ste. Marie"	I	145
G		
GALOPS Canal :—		
Construction	I	43, 182
Description of route	I	9
Enlargement	I	182
Improvement	I	40, 184
Maintenance	I	189
New works described	I	39
North Channel, improvement works	I	185
Superintending Engineer, Report of the	I	182
GENERAL Manager of Government Railways, Report of the :—		
Intercolonial	I	59
Prince Edward Island	I	122
Windsor Branch	I	118
GENERAL Supt. of I.C.R., Report of the	I	77
GRAND RIVER Feeder	I	10
GRENVILLE Canal :—		
Description of works	I	12
Enlargement	I	41
Expenditure	II	17
Operation and maintenance	I	50
Sketch showing section of canal	I	34
Superintending Engineer, Report of the	I	158
Water on mitre sill	I	164
H		
HALIFAX to Montreal, distance from	I	3
HODGSON, Mr. S. F. *See* "Mechanical Accountant"	I	137
HUGGAN, Mr. *See* "Accountant and Auditor of Prince Edward Island Railway"	I	131
HYDRAULIC and other rents	II	29

	Part.	Page.
I		
INTERCOLONIAL: —		
Accidents and casualties	I	108
Accountant and Treasurer, statements of the	I	66
Capital account	I	59
Chief Engineer, Report of the	I	90
Engineer of Maintenance, Report of the	I	77
Description of route	I	4
Expenditure, Statement by Accountant of Department	II	32
General Manager, Report of	I	59
General Superintendent, Report of the	I	77
Length of road	I	19
Mechanical Accountant, Statements of the	I	100
Revenue account	I	61
Rolling stock	I	22
Stores account	I	64
Traffic, Statistics relating to	I	21
Working expenses	I	23, 63
IROQUOIS Section of Williamsburg Canals	I	183
L		
LACHINE Canal: —		
Construction	I	38
Description of route	I	7
Expenditure	II	7
Enlargement works	I	38
Operation and maintenance	I	46
Superintending Engineer, Report of the	I	158
Water on mitre sills	I	161
LAKE St. Francis, expenditure	II	11
Improvement of channel	I	42
LAKE St. Louis channel	I	154
Construction	I	42
Expenditure	II	10
LAND Grants voted as railway subsidies	III	69
LAWLOR, Mr. F., *See* "Welland Canal"	I	197
M		
MACKENZIE, Mr. W. B. *See* "Chief Engineer, I.C.R."	I	90
MAPS to accompany report of Deputy Minister	(in pocket)	
MAP to accompany Report of Superintendent of Quebec Canals	"	
MARCEAU, Mr. E. *See* "Quebec Canals"	I	152
MECHANICAL Accountant of the Intercolonial, Statements of the	I	100
Prince Edward Island	I	128
MECHANICAL Superintendent of Prince Edward Island Ry	I	128
MISCELLANEOUS STATEMENTS:—		
Subsidy agreements for construction of railways	IV	2
Contracts entered into	IV	4
Property conveyed and damages released	IV	14
Water power and other property leased	IV	8
MONRO, Mr. T. *See* "Soulanges Canal"	I	147
MONTREAL and European Short Line Railway, expenditure on construction	II	37
MONTREAL, Ottawa and Kingston Canals Division, description of routes	I	11
MURRAY CANAL:—		
Description of works	I	10
Expenditure	II	22
Fines and damages	I	191
Operation and maintenance	I	51
Superintending Engineer, Report of the	I	190
Water on mitre sills	I	192
N		
NORTH Channel, St. Lawrence River, straightening, &c., and building dam	I	43, 185

	Part.	Page.
O		
Oxford and New Glasgow Railway, expenditure on construction	II	36
Ottawa River Canals	I	53
P		
Pacific Coast to Montreal by C.P.R., distance	I	4
Perth Branch of Rideau Navigation	I	13
Phillips, Mr. A. T. *See* "Rideau"	I	170
Poole, Mr. W. S. *See* "Mechanical Superintendent"	I	128
Pottinger, Mr. D. *See* "General Manager"	I	59, 118, 122
Price, Mr. J. E., General Supt., I.C.R	I	77
Prince Edward Island Railway:—		
Accidents and Casualties	I	130
Accountant and Auditor, Statements of the	I	131
Capital Account	I	32
Description and length of road	I	5
Expenditure on construction	II	38
General Manager, Report of the	I	122
Length of line	I	19
Mechanical Accountant, Statements of the	I	137
" Superintendent, Report of the	I	128
Superintendent, Report of the	I	123
Working expenses	I	33
Pugsley, Mr. J. W. *See* "Railway Committee"	I	201
Q		
Quebec Canals, Report of the Superintending Engineer	I	152
Beauharnois Canal	I	156
Carillon and Grenville Canals	I	158
Chambly Canal	I	156
Closing and Opening, Dates of	I	161
Depth of water on the several mitre sills	I	161
Grenville Canal enlargement	I	159
Hydrographic Surveys	I	154
Lachine Canal	I	152
Lake St. Louis Channel	I	154
Map of Lake St. Louis between Ste. Anne and Beaurepaire		(in pocket)
St. Anne's Lock	I	158
St. Ours Lock and Dam	I	157, 158
R		
Railway Committee of the Privy Council, Report of the Secretary on cases heard before	I	54, 201
Railway Statistics (Steam):—		
Accidents (fatal) during the year	VI	8
" summary of	VI	66
" on lines owned by coal and iron mining companies	VI	72
Aid (Government and municipal) promised to railways completed and under construction	VI	5
Aid granted to railways by governments	VI	73
" " by municipalities	VI	80
" Summary	VI	92
Capital, statement of capital employed	VI	23
Characteristics of railways	VI	28
Earnings, statement showing	VI	54
Freight carried	VI	44
Growth of railways since 1836	VI	3
Land grants to railways completed and under construction	VI	6
Lines owned by coal and iron mining companies	VI	70
Location of railways	VI	9
Nominal paid-up capital	VI	5
Operations and mileage	VI	36
Operating expenses	VI	60
Rolling stock	VI	25
Summary of tables for year	VI	4

	Part.	Page.
R		
RAILWAY STATISTICS (ELECTRIC):—		
Accidents	VI	112
Capital of Electric Railways	VI	91
Characteristics of roads	VI	102
Description of freight carried	VI	106
Earnings	VI	108
Mileage by provinces	VI	98
Nominal capital paid-up	VI	99
Operations and mileage	VI	104
Operating expenses	VI	110
Rolling stock	VI	100
Tables of Electric Railways	VI	97
RAILWAY SUBSIDIES:—		
Cash subsidies paid	III	3
" of fixed amounts	III	6
Chief Engineer's report, reference to	I	53
Grant of lands	III	8
" loans	III	6
" used iron rails	III	7
Loan of "	III	7
Mileage of railways subsidized by 63-64 Vic., c. 8	III	6
Subsidies voted for railways	II	47
Subsidy Acts passed:—		
Cash grants	III	9
Land grants	III	69
RAPIDE PLAT CANAL:—		
Description of route	I	9
Enlargement and construction	I	188
Superintending Engineer, Report of the	I	188
RICHELIEU and Lake Champlain system of navigation	I	14
RIDEAU CANAL:—		
Expenditure on canal	II	19
Description of route	I	13
Operation and maintenance	I	51
Perth Branch	I	13
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	170
Water on mitre sills	I	177
RIDOUT, Mr. T. *See* "Railway Statistics"	VI	3
RIVER ST. LAWRENCE and Lakes—		
Description of route	I	6
Expenditure on surveys	II	9
North Channel, improvement	I	43, 185
ROGERS, Mr. R. B. *See* "Trent Canal"	I	165
RUBIDGE, Mr. T. S. *See* "St. Lawrence District"	I	178, 188
RUEL, Mr. Gerard S. *See* "Miscellaneous Statements"	IV	3
S		
SAULT STE. MARIE CANAL:—		
Construction	I	36
Description of works	I	11
Expenditure	II	25
Maintenance and operation	I	48
Superintendent, Report of the	I	143
Improvement work, Report of the Engineer in charge	I	145
Sketch showing section of lock	I	34
SCHREIBER, Mr. C. *See* "Chief Engineer" and "Deputy Minister"	I	3, 201
SHANNON, Mr. L. *See* "Accountant of Department"	II	3
SHARP, Mr. G. A. *See* "Superintendent of P. E. I. Ry"	I	123
SOULANGES CANAL:—		
Construction	I	36
Description of works	I	8
Engineer, Report of the	I	147
Expenditure	II	26
Operation and maintenance	I	46
Sketch showing section of lock	I	34
STEWART, W. A. *See* "St. Lawrence District"	I	188
SUBSIDIES. *See* "Railway Subsidies"	III	3
SUPERINTENDENT of P. E. I. Ry., Report of the	I	123

	Part.	Page.
S		
SUTTON, Mr. J. *See* "Mechanical Accountant"	I	103
STE. ANNE'S CANAL:—		
Description of works	I	12
Expenditure	II	16
Operation and maintenance	I	49
Superintending Engineer, Report of the	I	158
Water on mitre sills	I	162
Sketch showing section of canal	I	34
ST. LAWRENCE DISTRICT:—		
Superintending Engineer, Report of the, on enlargement	I	178
Superintendent of operation, Report of, on maintenance	I	188
Water on mitre sills	I	192
ST. LAWRENCE River and Lakes:—		
Description of routes	I	6
Expenditure on surveys	II	9
River Reaches, Improvement	I	186
North Channel, construction	I	185
ST. OURS Lock and Dam:—		
Description of lock	I	15
Expenditure	II	20
Operation and maintenance	I	49
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	157
Water on mitre sill	I	163
ST. PETER'S Canal:—		
Description of works	I	17
Expenditure on construction	II	5
Operation and maintenance	I	52
Report of Mr. Devereux	I	198
Sketch showing section of lock	I	34
T		
TAY Canal, expenditure. *See* also "Rideau"	II	14
TOLLS on Canals, Consolidated Tariff of	V	150
TRANSCONTINENTAL railway communication	I	3
TRENT Canal:—		
Construction	I	168
Description of works	I	15
Expenditure	II	23
Operation and maintenance	I	51
Superintending Engineer, Report of the	I	165
W		
WELLAND CANAL:		
Damages to property	I	196
Description of canal and branches	I	10
Engineer in charge of improvements at Port Colborne	I	197
Expenditure	II	15
Fines collected	I	196
Grand River Feeder	I	10
Improvements at Port Colborne	I	41
Operation and maintenance	I	48
Port Maitland branch	I	11
Sketch showing section of lock	I	34
Superintending Engineer, Report of the	I	193
Water on mitre sills	I	195
Welland River branches	I	10
WELLER, Mr. J. L. *See* 'Welland Canal'	I	193
WILLIAMSBURG CANALS:—		
Description of works	I	8
Expenditure	II	13
Fines and damages	I	191
Operation and maintenance	I	47
Superintending Engineer, Report of the	I	181, 189
Water on mitre sills	I	192
WILLIAMS, Mr. T. *See* "Chief Accountant and Treasurer"	I	66, 119

	Part.	Page.
W		
WINDSOR BRANCH :—		
Accountant and Treasurer, Statements of the	I	119
Engineer of Maintenance, Report of the	I	121
Description of the road	I	5
Earnings	I	31
General Manager, Report of the	I	118
Length of route	I	19
Y		
YUKON RAILWAY :—		
Expenditure	II	42
Route described		xvi

THIRTY-FIFTH ANNUAL REPORT

OF THE

DEPARTMENT OF MARINE AND FISHERIES

1902

MARINE

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY S. E. DAWSON, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1903

[No. 21—1903]

To His Excellency the Right Honourable Sir Gilbert John Elliot, Earl of Minto
Governor General of Canada.

May it please Your Excellency :

I have the honour to submit herewith, for the information of Your Excellency and the Legislature of Canada, the Thirty-Fifth Annual Report of the Department of Marine and Fisheries, Marine Branch.

I have the honour to be,
Your Excellency's most obedient servant,

JOSEPH RAYMOND F. PRÉFONTAINE,
Minister of Marine and Fisheries.

Department of Marine and Fisheries,
Ottawa, December, 1902.

CONTENTS.

PAGE.

Report submitted by Minister ii
Report of Deputy Minister 3

SUBJECTS EMBRACED IN DEPUTY MINISTERS REPORT.

PART I.

Buoys and Beacons 5–48
Buoys and Beacons, List of 88
Casualties, St. Lawrence River 27
Correspondence 4
Coasting Trade of Canada 25
Chief Engineer's Annual Report 43
General Superintendent of Lightbouses, Detailed Report of Lighthouse Construction, &c 56
Dominion Steamers 12
Employees, outside service (Marine Branch) 11
Geographic Names 50
Hydrographic Survey 50
Lighthouse Service 4
" Ontario Division 57
" Quebec Division 65
" Nova Scotia Division 74
" New Brunswick Division 78
" Prince Edward Island Division 82
" British Columbia Division 84
Live Stock Shipments, Inspection of 21
Life Boat Stations 24
Maintaining Dominion Steamers, Statement of Expenditure 19
Merchant Shipping 4
Masters' and Mates' Certificates 19
" " Statement of Receipts and Expenditure 20
Meteorological Service 21
Marine Hospitals 7
Oil for use of lighthouses 6
Outside Service Employees (Marine Branch) 11
Obstruction to Navigation, Removal of 23–47
Sick and Distressed Mariners 7
" " Statement of Receipts and Expenditure 9
Steamboat Inspection 9
" " Statement of Receipts and Expenditure 10
Steamboat Inspectors, List of 10
Signal Service 22
Sable Island—Tree Planting 25
Tidal Survey 91
Wrecks and Casualties 21
" " " St. Lawrence River 27

APPENDICES.

PART II.

	Page.
Expenditure, Statement of, for 1900-1	3
Expenditure since Confederation	42
Engineer's Certificates	140
Live Stock Shipments, Montreal	26
" " Halifax	38
" " Charlottetown	38
" " St. John, N.B.	40
" " Recapitulation	147
Life Saving Stations, Report on	52
" " Total for 1902	148
Life-boat Stations, List of	54
Lighthouse, Keepers and Stations, List of	57
Masters and Mates, Report of Chairman of Board of Examiners	145
Meteorological Service	7
Magnetic Observatories	18
Revenue Statement	5
Rewards for Humane Service	144
Steamboat Inspection, Report of Chairman, and Vessels Inspected	71
Steamboat Inspection, Statement of dues collected	6
Signal Service	20
Sick Mariners' Dues	56
Seismological Observations	14
Wharfs, Statement relating to	48

PART I.

ALPHABETICAL INDEX.

A.

	Page.
Aberdeen	12
Acetylene lighting	45
Aids to navigation—Ontario	57
" New, Quebec	66
" " Nova Scotia	75
" New Brunswick	79
" Prince Edward Island	83
" British Columbia	84
Apple River light	76
Anderson Hollow light	79

B.

Buoys and Beacons	5
Brant	15
Bayfield	18
Buoyage	48
Burlington Channel light	61
Buoys and Beacons—List of in the Dominion	88
" " Ontario	64
" " Quebec	72
" " Nova Scotia	77
" " New Brunswick	81
" " British Columbia	86
" " Prince Edward Island	84
Bourgeois Inlet light	75
Brooklyn light	76
Buctouche Bar	80
British Columbia Lighthouse Division	84
Brockton Point light	85

C.

Correspondence	4
Contest	18
Coasting Trade of Canada	25
Casualties, St. Lawrence River	27
Chief Engineer's Annual Report	43
" " Staff	43
" " Office work	43
" Detailed Report	56
Cape Croker light	59
Copper Mine Point light	61
Cape Santé Semaphore	70
Cape Sable light	76
Canso signal staff	76
Cape la Ronde light	76
Cranberry Head fog alarm	76
Cape Tormentine light and fog bell	79

D.

PAGE
Dominion steamers and statement of maintenance 12-19
Druid 16
Digby Pier light 75

E.

Employees outside service 11
Elliot Point light 61

F.

Fog alarm machinery 46
Frenchman Bay light 61
Flowerpot Island fog alarm 62
Fame Point fog alarm 66
Father Point 69

G.

Geographic names 50
Gallops Canal head light 59
" North Channel light 59
Great Bras D'Or light 75
Gannet Rock light 80

H.

Hydrographic Work—Great Lakes 50–52
" Atlantic Coast and St. Lawrence River 51
" Pacific Coast 53
Hilton Light discontinued 62
Henry Island light 75
Hawke Islet fog alarm 76

I.

Improvements and Repairs at existing Stations—Ontario 61
" " Quebec 69
" " Nova Scotia 76
" " New Brunswick 80
" " Prince Edward Island 83
" " British Columbia 85
Isle Verte light 67
Isle Marie light 68
Isle de Deslaurier range light 69
Isle à l'Aigle light 69
Isle aux Prunes light 70
Isle Ouetique 76

J.

Jerseyman Island light 76

K.

PAGE.

Kingsville light 61
Kincardine light 62
Kingsport 76

L.

Lighthouse service 4
Lansdowne 12
Lady Laurier 17
Live Stock Shipments 21
Life-boat Stations 24
Lake St. Francis Middle Ground light 58
Lighthouses—Ontario Division 57
" Quebec " 65
" Nova Scotia Division 74
" New Brunswick Division 78
" Prince Edward Island Division 82
" British Columbia Division 84
Lower Traverse crib 67
" lightship 70
Louisburg fog alarm 75

M.

Merchant Shipping 4
Marine Hospitals 7
Minto 13
Masters and Mates—Certificates, Sea-going 19
" " Inland and Coasting 20
" " Receipts and Expenditure 20
Meteorological Service 21
Meaford light 60
Michipicoten Harbour light 61
Medjik Bluff light 80
Murray Harbour light 83
Miminegash light 83

N.

Narrow Island light 62
North of Halfway Point 70
Nova Scotia Lighthouse Division 74
New Brunswick " " 78

O.

Oil for Lighthouses 6
Outside Service, Marine Branch 11
Obstructions to Navigation, Removal of 23–47
Ontario Lighthouse Division 57
Oak Point light 79

P

Port Colborne temporary light 59
Pelee Passage light 59
Pointe aux Pins light 62
Point Echouerie light 66

P—*Continued.*

	PAGE.
Port Daniel light	66
Point Nicholas semaphore	67
Port St. Francis light	70
Port Felix light	75
Petit de Grat light	76
Partridge Island, observatory and fog alarm	80
Prince Edward Island Lighthouse Division	82
Portier Pass light	85

Q

Quadra	16
Quebec Lighthouse Division	65

R

Richards landing light	60
Rainy River range light	62
Richibucto beach light	80

S

Sick and Distressed Mariners	7
" " Statement of receipts and expenditure	9
Steamboat Inspection	9
" " Statement of receipts and expenditure	10
Steamboat inspectors, list of	10
Stanley	14
Shamrock	17
Scout	18
Signal Service	22
Sable Island, Tree planting	25
St. Lawrence River, casualties, investigation of	27
Soulanges Canal Upper Entrance, new towers	57
St. Regis Dyke light	58
Stribling Point light	60
St. Placide new tower	61
Snug Harbour light	62
St. Antoine de Tilley, light	67
St. Antoine Upper light	70
Stonehaven light	80
Sea Cow Head light	83

T

Tidal Survey	54-91
Thornbury light	62

U

Upper Traverse light	70

V

Verchères Traverse light	68
" Village light	68
Vancouver North, Magnetic Range	84

W

PAGE.

Wrecks and casualties.... 21
Wolfville light.... 75
Wood Island Harbour range light.... 83
Walker Rock light.... 85

Z

Zephy Rock light ship.... 80

PART II

APPENDICES.

ALPHABETICAL INDEX.

E

	Page
Expenditure, Statement of	3
Examiners of Masters and Mates—Report of Bloomfield Douglas	145
Expenditure since Confederation, Statement of	42
Engineers' Certificates	140

L

Live Stock Shipments—Report of Inspector—Montreal	26
" " St. John, N.B	40
" " Halifax, N.S	38
" " Charlottetown	38
" " Recapitulation	147
Life Saving Stations Report	52
" " Statement	54
List of Lightkeepers, Stations, &c	57

M

Meteorological—R. F. Stupart's Report	7
Magnetic Observatory— " "	18
" " St. John	17
" " Quebec	17

R

Revenue, Statement of	5
Rewards for Saving Life	144
Recapitulation—Live Stock shipments	147

S

Signal Service—J. U. Gregory's Report, Quebec	20
" R. M. Macrory, Halifax	24
Sick Mariners' Dues Collected	56
Steamboat Inspection—Chairman's Report	71
" Dues Collected	6
Steam Vessels Inspected, West Ontario Division, by John Dodds	76
" " " E. W. McKean	79
" " in Canada but registered elsewhere, M. R. Davis	95
" not Inspected	83
Steam Vessels Inspected, West Ontario Division, Wm. Evans, Hull Inspector	85
" " in Canada by Wm. Evans, but registered elsewhere	88
" East Ontario, inspected by Thos. P. Thompson	89
" Inspected, East Ontario Division, M. R. Davis, Hull Inspector	93
" " in Canada by Thos. P. Thompson, but registered elsewhere	92
" East Ontario, &c., not inspected, Thos. P. Thompson	92
" Inspected in East Ontario but registered elsewhere, M. R. Davis	95
" Montreal Division, inspected by Wm. Laurie	97
" " " Louis Arpin	100

S—*Continued.*

PAGE.

Steam Vessels, Montreal Division, not inspected by Wm. Laurie and Louis Arpin ... 101
" Inspected in Canada by Wm. Laurie but registered elsewhere ... 101
" Quebec Division inspected by Jos. Samson ... 102
" " " not inspected by Jos. Samson ... 105
" " and Montreal Division, inspected by Pierre D. Brunelle, hulls ... 106
" Nova Scotia Division, inspected by John P. Esdale ... 108
" Inspected in Canada, by John P. Esdale, but registered elsewhere ... 110
" Nova Scotia Division, not inspected by John P. Esdale ... 111
" " " inspected, S. R. Hill, Hull Inspection ... 112
" Inspected in Canada, by S. R. Hill, but registered elsewhere ... 113
" New Brunswick and P. E. Island Division, inspected by W. L. Waring ... 114
" Inspected in Canada, by W. L. Waring, but registered elsewhere ... 116
" New Brunswick and P. E. Island Division, not inspected by W. L. Waring ... 117
" " " " inspected by I. J. Olive, Hull Inspector 118
" Inspected in Canada, by I. J. Olive, but registered elsewhere ... 119
" British Columbia Division, inspected by J. A. Thompson ... 120
" Inspected in Canada, by J. A. Thompson, but registered elsewhere ... 122
" British Columbia Division, not inspected by J. A. Thompson ... 122
" Vancouver and Yukon Division, inspected by F. N. Richardson ... 123
" " " " " in Canada, but registered elsewhere ... 125
" " not inspected ... 126
" British Columbia Division, inspected by R. Collister, Hull Inspection ... 127
" " " " " " but registered elsewhere 128
" Manitoba and North-west Division, inspected by Geo. P. Philipps ... 129
" " " " not " " ... 131
" " " " " in Canada, registered elsewhere ... 131
" Added to the Dominion in West Ontario Division, inspected by E. W. McKean ... 132
" " " " " John Dodds ... 132
" " " East " " Thomas Thompson 133
" " " Montreal " " W. Laurie and L. Arpin ... 133
" " " Quebec " " Joseph Samson and Pierre Brunelle. 134
" " " Nova Scotia " John P. Esdaile ... 134
" " " New Brunswick and P. E. Division, inspected by W. L. Waring ... 135
" " " British Columbia Division, inspected by J. A. Thompson 135
" " " Vancouver and Yukon Division, inspected by F. N. Richardson ... 136
" " " North-west TerritoriesDivision, inspected by George P. Phillips ... 136
" Broken up as unfit for service—West Ontario ... 137
" " " East Ontario ... 137
" " " Montreal ... 138
Steam Vessels broken up as unfit for service—Quebec ... 138
" " " Nova Scotia ... 138
" " " New Brunswick and Prince Edward Island ... 139
" " " British Columbia ... 139
" " " Vancouver ... 139
" " " Manitoba and North-west Territories ... 140
List of Certificates to Engineers of Steamboats ... 140

T.

Tow Barges Inspected—M. R. Davies ... 96

W.

Wharfs, Statement relating to ... 48

PART I

THE REPORT OF THE DEPUTY MINISTER—THE REPORT OF THE CHIEF ENGINEER IN DETAIL RELATING TO CONSTRUCTION AND REPAIRS TO LIGHTHOUSES, HYDROGRAPHIC SURVEY AND TIDAL SURVEY.

REPORT OF THE DEPUTY MINISTER.

To the Honourable
RAYMOND PRÉFONTAINE,
Minister of Marine and Fisheries.

SIR,—I have the honour to report on the transactions of the Marine Branch of this department for the fiscal year ended June 30 last, and to give an account of a portion of the business up to date.

In Part I. of this report will be found the detailed report of the chief engineer on construction and maintenance of lighthouses and other aids to navigation, references to the reports of the chairman of the Board of Steamboat Inspection, chairman of the Board of Examiners of Masters and Mates, the inspectors of Live Stock Shipments, the director of the Meteorological and Magnetic Service, the inspector of Signal Service and the reports on Life-boat Stations and Rewards for Humane Service.

A short account of the work of the Dominion steamers is given and the expenditure in connection therewith, the buoyage of the coast, harbours and inland waters, the purchase of oil for the use of lighthouses, the marine hospitals in the Dominion, certificates to masters and mates, and wrecks and casualties.

In Part II. the reports from which the synopses have been made will be found in extenso, also statements of expenditure, revenue, sick mariners dues, wharfage, wrecks and casualties, steamboat inspection, and a list of light-keepers.

The amount expended on the various branches of the public service comprised in the Marine branch of this department, during the fiscal year ended June 30 last, was $1,431,371.76, the expenditure for the previous year was $967,484.01, not including expenditure for civil government. The expenditure for civil government for the fiscal year ended June 30 last, was $61,183.32, and for civil government salaries, contingencies, $9,063.00. It will thus be seen that the expenditure for the various branches of the Marine branch and for civil government was $1,501,618.08. The Fisheries expenditure amounted to $393,627.21, total $1,895,245.29.

The amount voted by Parliament for the different branches of the department of Marine and Fisheries, including Fisheries and the departmental salaries was $2,088,824.74, it will thus be seen that the expenditure for the fiscal year was $193,579.45 less than the amount voted by Parliament.

The whole number of persons in the outside service of the Marine branch, including crews of fishery and marine steamers at the date of this report is 1,916.

During the past fiscal year the expenditure for maintenance of lights and coast service amounted to $537,373.93 ; construction, $158,714.09 : total for maintenance and construction, $696,088.02 ; while for the previous year the expenditure for lighthouse

and coast service, including construction was $578,812.72; showing an increase of expenditure for the year ending June 30 last, of $117,275.30.

The appropriation for this service was $836,560, the expenditure being $140,471.98 less than the appropriation of Parliament for the fiscal year.

LIGHTHOUSE SERVICE.

The lighthouse service of the Dominion is divided as follows:—The Ontario division, embracing all lights from Montreal westward to the North-west Territories; the Quebec division, extending below Montreal and including the river and gulf of St. Lawrence and Strait of Belle Isle; the Nova Scotia division, including St. Paul's Island, Cape Breton, Sable Island and Cape Race, Newfoundland; the New Brunswick division; the Prince Edward Island division and the British Columbia division, each including lights within the provincial boundaries.

The total number of light stations, lightships and fog-alarm stations in the Dominion on June 30, 1902, was 713, and lights shown 899; the number of steam whistles, fog-horns, bells and guns 91; the number of light-keepers and engineers of fog-alarms with masters of lightships was 719.

The report of the chief engineer relating to lighthouse construction, repairs, hydrographic surveys, &c., will be found in Part I. The principal repairs, changes and improvements at existing stations are referred to in his report, also new aids to navigation. The work done at fog-alarm stations in connection with steam whistles, compressed air horns and explosives, are dealt with under the proper headings. Information is also given respecting the extent of repairs and some account of the repairs in detail, under the head of the station.

CORRESPONDENCE.

About 21,753 letters, exclusive of telegrams, were received in the department during the fiscal year. The correspondence was carefully examined and replied to as far as necessary. About 13,000 letters were sent out during the same period. Forms, reports, circular letters, notices inviting tenders, are not included in the number of letters addressed to this department or sent out.

These forms, &c., are numerous and require special attention as the matters to which they refer are important.

In the Records Branch of the department the letters received are carefully examined, entered in the record book, placed on file, and the copy of the reply attached, so that the letters and the answers can readily be seen, and any subject easily followed up.

MERCHANT SHIPPING.

Reports relating to merchant shipping for the calendar year of 1902 have not been received from the registrars of shipping in various parts of the Dominion. The reports are made up to the end of the calendar year, as provided by the Canadian Shipping Act, and therefore, will not be received until some time after the month of January.

The statements showing the number of vessels in the registry books of the Dominion, December 31, 1902, will appear in Supplement No. 1 of this report. The number of new vessels built and registered will also be shown, and also a comparative statement of the tonnage of new vessels built and registered from 1874 to 1902, both inclusive.

Mr. W. L. Magee, chief clerk, attends to all matters in connection with merchants shipping.

BUOYS AND BEACONS.

The extended coast line of Canada, and numerous bays, inlets, rivers, lakes, harbours and other navigable waters require a large number of buoys which are maintained at an average cost of $69,000 per annum. For the fiscal year ending June 30 last, the service cost $81,903.96. The cost of this service is materially increased in years when large contracts are made for steel signal and other coast buoys.

The department has been for some time past substituting steel coast buoys for wooden buoys, with favourable results. The districts now buoyed in all parts of the Dominion number about 330, and the buoys number 3,150. A record of the names of shoals, dangers, reefs and various points in channels, harbours, &c., where the buoys are placed, is carefully maintained ; this enables the department to immediately locate the buoys when any reference is made to them in the correspondence.

The contract system has been found to work most economically and efficiently ; in the majority of instances the contracts are immediately under the supervision of departmental officers, whose duty it is to report to the department any neglect of work on the part of the contractors. There are now existing about 200 contracts, some of which will shortly expire, but new contracts will be entered into in the spring. These contracts are generally made for a period of 3 years. The contractors are paid semi-annually upon the certificate of the superintending officer. There are, however, some districts not under contract ; the work is being attended to by the harbour masters. In these cases it has been found more advantageous to place the work immediately in the hands of these officers.

A large number of whistling, bell and other iron buoys are maintained along the coast of the several provinces by Dominion steamers, particularly the Nova Scotia, New Brunswick and British Columbia coast. The cost of this maintenance by the steamers is not charged directly to the buoy service but is included in the cost of maintenance of steamers which frequently perform the double duty of attending to lighthouses and the coast buoy service, on the same trip.

The expenditure in connection with the buoy service for the year ended June 30, 1902, was as follows :—

For the province of Quebec including the port of Montreal	$25,852 48
Above Montreal including Ontario	9,644 81
Nova Scotia	20,904 26
New Brunswick	18,360 70
British Columbia	4,287 13
Prince Edward Island	2,854 58
Total	$81,903 96

In addition to the buoys for marking dangers 42 gas buoys are maintained showing lights; 12 in the Quebec Agency on the St. Lawrence River; 25 between Montreal and Prescott also on the St. Lawrence River; 1 in Pelee Passage, Lake Erie; 1 at the mouth of the Detroit River and 3 in Parry Sound.

The coast buoys maintained by Dominion steamers on the coast of Nova Scotia consist of 23 automatic whistling buoys, 18 bell buoys and 128 steel can and conical. In the New Brunswick agency there are maintained in the same way 16 signal buoys, 15 steel can and conical buoys and one bell boat. New can and conical buoys were supplied the New Brunswick agency during the year but several were sent to places where contracts exist and several were held as spare bouys; there were 18 of these new buoys supplied.

The signal coast buoys of Prince Edward Island number 3, the service in general is performed under contract with the exception of maintaining the signal buoys. Two conical buoys to be added to the coast buoys have recently been supplied.

In the province of Quebec under the Quebec agency, one whistling buoy was established at Manicougan and 1 bell buoy at Matane. A large number of can and conical buoys are maintained by the Dominion steamers on the St. Lawrence river between Montreal and Quebec and also below Quebec. The complete list of these buoys forms part of the chief engineer's report. The steamer *Shamrock* is constantly employed in the buoy service on the St. Lawrence river between Montreal and Quebec and the *Scout* between Montreal and Prescott and attends the gas buoys above Montreal on the St. Lawrence. The new Dominion steamer *Druid* performs the buoy service below Quebec and attends the gas buoys in the Quebec district.

The coast buoy service in British Columbia is performed by the Dominion steamer *Quadra* and the list of buoys in the Chief Engineer's report shows the number of steel and other buoys but no whistling buoys have yet been established there. The service at the mouth of the Fraser River is performed by the Public Works steamer *Samson* employed by this Department.

Tenders for 9 steel can buoys and 5 conical buoys for the Quebec district were invited and also tenders for 2 bell buoys one of which was placed at Matane, the other will be placed on Graham Shoal, Big Duck Island, Lake Huron; also tenders for 2 conical buoys and 2 can buoys which will be placed on dangers in Georgian Bay.

OIL FOR USE OF LIGHTHOUSES.

The contract for supplying lighthouse oil was carried out by the Imperial Oil Company of Sarnia, for the season of 1902.

The specification upon which tenders were invited, required the oil to weigh at 62° Fahr., not less than 7·85, nor more than 8·20 lbs. per gallon, and to withstand a flash test of 115° Fahr.

The quantity of oil supplied lights above Montreal during the season of 1902, was 22,802.90 gallons imperial measure, which cost $4,047.34; to the lights in the Quebec district, 26,609 gallons, which cost $4,448.97; to the lights in the Nova Scotia district, 53,281 gallons, which cost $10,567.53; to the New Brunswick district, 11,676 gallons, costing $2,535.65; to the Prince Edward Island district, 6,255 gallons, costing $1,376.10.

In addition to this the department purchased from the Standard Oil Company, of New York, 11,500 gallons of American oil for the Nova Scotia district, at a cost of 16¼ cents a gallon in New York; for New Brunswick, 5,000 gallons, at 16¼ cents a gallon; for the district above Montreal, 1,550 gallons at the same price in New York. The freight was paid by the department. In addition to this 7,000 gallons of American oil was purchased for the British Columbia district, at 25 cents a gallon in bond.

The list of prices according to contract is as follows :—

Delivered at	Per Gallon in barrels.	Per Gallon in case.
	Cts.	Cts.
Sarnia	14¼	19
Port Dalhousie	14¼	19
Kingston	15⅜	20½
Montreal	15¾	20½
Quebec	16½	21¼
St. John, N.B	16½	21½
Pictou, N.S	16⅝	21½
Halifax, N.S	16½	21¼
Charlottetown, P.E.I	17¼	22

SICK AND DISTRESSED MARINERS.

MARINE HOSPITALS.

Under the provisions of chapter 76, Revised Statutes, a duty of two cents per ton register is levied on every vessel arriving in any port in the provinces of Quebec, Nova Scotia, New Brunswick, Prince Edward Island and British Columbia, the money thus collected forming the Sick Mariners' Fund. Vessels of the burden of 100 tons and less pay the duty once in each calendar year, and vessels of more than 100 tons, three times in each year.

By an amendment of this Act passed at the session of Parliament in 1887, 50-51 Victoria, chapter 40, it is provided that no vessel, not registered in Canada and which is employed exclusively in fishing or on a fishing voyage, shall be subject to the payment of this duty.

The receipts for the fiscal year ended June 30 last, amounted to $65,853.83, being an increase of $6,014.94, as compared with the preceding year. The increase and decrease in receipts for sick mariners' dues in the various provinces were as follows :— Nova Scotia, decrease $1,734.50; New Brunswick, increase, $1,873.93; Quebec, increase $4,701.11; Prince Edward Island, decrease $56.96; British Columbia, increase $1,522.62.

The Sick Mariners Act does not apply to the province of Ontario, and consequently no dues are collected from vessels in that province, although a small expenditure is incurred on account of sick seamen. An appropriation is made by Parliament to cover the expenditure at Kingston and St. Catharines, where general hospitals have been established and sick seamen were paid for at a per diem rate of 90 cents.

In the province of Quebec, the expenditure on account of sick seamen amounted to $7,927.62, being $196.29 more than the previous year. The total collections for the entire province amounted to $19,763.92, being $4,701.11 more than in the previous year.

At the port of Montreal, sick seamen are cared for at the General Hospital and at Notre Dame Hospital, under an arrangement made by the department, by which 90 cents per diem is paid for board and medical attendance of each seaman. The sick mariners' dues collected at the port of Montreal during the fiscal year ended June 30, amounted to $9,741.66.

At the port of Quebec sick seamen are cared for at the Jeffery Hale and the Hotel Dieu hospitals, the sum of 90 cents per diem for each seaman is allowed for medical attendance and board. The sick mariners' dues collected at Quebec amounted to $7,267.66.

The expenditure on account of sick seamen in the province of New Brunswick for the fiscal year amounted to $8,977.62, being $3,381.93 more than the preceding year, and the collection of dues to $13,230.14, or $1,873.93 more than the previous year. Marine hospitals have been maintained at Miramichi, Richibucto and Bathurst.

In the province of Nova Scotia, marine hospitals are maintained at the ports of Yarmouth, Pictou, Sydney, Lunenburg and Point Tupper. The total expenditure on account of sick seamen in the province of Nova Scotia for the fiscal year amounted to $24,221.02 and the receipts to $20,767.55.

At Halifax provision is made for the care of sick seamen at the Victoria General Hospital, under arrangements made with the managers, by which the sum of 90 cents per diem is allowed for board and medical attendance to sick seamen.

In the province of Prince Edward Island the sum expended on account of sick and disabled seamen during the fiscal year was $1,616.11, and the receipts from sick mariners' dues were $454.84.

Sick seamen are cared for at the Charlottetown and Prince Edward Island hospitals under arrangements made with the managers of these institutions, at the same rate as is paid to the public hospitals in other parts of the Dominion.

In the province of British Columbia the sum of $8,240.15 was expended for sick and disabled seamen, while the receipts from the collection of sick mariners' dues amounted to $11,898.64.

The marine hospital at Victoria has in attendance a medical superintendent with a salary of $300 per annum, and a keeper whose salary is $500 per annum. He is also allowed a rate of $5 a week for board and attendance of each seaman. The keeper procures fuel, light, &c., at his own expense.

At ports where no hospitals are established in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, sick seamen are cared for under the chief officer of Customs, when the vessel to which the seamen belong have paid their dues according to law. A circular to collectors of Customs was issued February 7, 1891, permitting sick seamen to be attended at the port of arrival of a vessel, provided that the regular dues were previously paid at some port.

During the fiscal year the sum of $799.33 was expended for shipwrecked and distressed seamen, under the provisions of the Sick and Distressed Mariners Act.

The total expenditure on account of sick and disabled seamen and marine hospitals amounted to $51,827.12, and the appropriation of parliament for this service was $50,000. The dues collected amounted to $65,853.83.

The receipts and expenditure in connection with sick and distressed seamen from the year 1869 were as follows :—

	Receipts.	Expenditure.
	$ cts.	$ cts.
For the fiscal year ended 30 June 1869	31,353 78	26,987 64
" " 1870	31,410 46	27,029 34
" " 1871	29,683 41	28,971 22
" " 1872	34,911 64	34,947 69
" " 1873	37,136 10	41,016 43
" " 1874	41,500 16	59,778 90
" " 1875	37,801 46	50,684 76
" " 1876	41,287 66	48,828 49
" " 1877	43,739 21	51,647 94
" " 1878	44,665 07	43,780 90
" " 1879	37,779 57	42,729 36
" " 1880	42,523 20	42,160 91
" " 1881	49,779 72	40,667 52
" " 1882	45,951 47	39,359 11
" " 1883	45,573 42	36,249 65
" " 1884	48,667 07	39,553 58
" " 1885	39,068 39	44,501 57
" " 1886	40,848 05	50,377 62
" " 1887	42,334 92	37,447 35
" " 1888	41,669 64	36,447 85
" " 1889	39,306 29	41,320 59
" " 1890	47,881 75	41,729 11
" " 1891	43,829 68	35,155 12
" " 1892	45,381 92	33,498 83
" " 1893	46,190 69	35,052 37
" " 1894	49,105 40	38,403 94
" " 1895	42,815 74	38,332 55
" " 1896	45,751 61	36,683 36
" " 1897	54,358 10	35,931 19
" " 1898	54,552 81	34,526 83
" " 1899	57,365 79	37,353 29
" " 1900	59,971 84	32,743 30
" " 1901	59,783 34	34,944 93
" " 1902	65,853 83	51,827 12
Total	1,519,833 19	1,353,676 07

STEAMBOAT INSPECTION.

The total number of steamboats reported in the several districts in the Dominion is 1,513, of this number 128 were added to the Dominion during the year, the gross tonnage being 269,002.72. Fees were collected for inspection amounting to $37,428.92; the fees from engineers for certificates amounted to $910.00, and fees for inspection of tow barges to $120, making the total receipts from steamboat inspection and engineer's certificates, $38,458.92. The net receipt to the credit of the fund for the previous year amounted to $32,876.57.

The total expenditure in connection with inspection was $27,493.80, decrease of expenditure for the last fiscal year of $1,753.79.

The consolidated laws relating to steamboat inspection came into force on the 1st day of January, 1899.

The report of the chairman of the Board of Steamboat Inspection forms Appendix No. 12 of this report.

The following is a comparative statement of the receipts and expenditure in connection with steamboat inspection :—

	Receipts.	Expenditure.		Receipts.	Expenditure.
	$ cts.	$ cts.		$ cts.	$ cts.
For the fiscal year ended June 30, 1870	12,521 29	7,379 18	For the fiscal year ended June 30, 1890	19,859 18	20,989 52
" 1871	10,369 96	8,321 00	" 1891	21,644 72	22,183 76
" 1872	11,719 43	8,500 00	" 1892	20,994 84	22,736 59
" 1873	15,412 75	11,205 54	" 1893	25,295 35	24,386 95
" 1874	15,603 19	10,291 58	" 1894	24,835 47	25,961 36
" 1875	15,011 90	12,199 81	" 1895	24,630 56	26,385 88
" 1876	13,811 24	13,081 86	" 1896	24,002 32	26,321 27
" 1877	15,858 42	12,073 01	" 1897	25,094 95	26,837 83
" 1878	12,431 25	13,228 28	" 1898	31,525 40	26,342 29
" 1879	12,331 16	13,076 46	" 1899	33,854 45	28,035 49
" 1880	15,424 02	11,854 34	" 1900	36,474 83	27,965 92
" 1881	16,905 49	12,211 65	" 1901	34,967 37	29,247 59
" 1882	15,277 78	14,835 97	" 1902	38,458 92	27,493 80
" 1883	12,577 36	16,209 02			
" 1884	15,371 79	21,893 28		637,355 28	633,861 12
" 1885	13,343 66	23,235 04	Deduct the expenditure from receipts.	633,861 12	.....
" 1886	14,087 76	21,775 57			
" 1887	12,701 20	22,837 80			
" 1888	12,550 14	21,430 45	Balance to credit of funds...	3,494 16	.....
" 1889	12,576 18	22,313 03			

The following list contains the names of the inspectors of boilers and machinery, and Hulls and equipments of steamboats, viz :—

Name.	Position.	Address.
Edward Adams	Chairman of Board of Steamboat Inspection	Ottawa.
M. P. McElhinney	Inspector of Hulls and Equipment	"
I. J. Olive	" "	St. John, N.B.
S. R. Hill	" "	Halifax, N.S.
William Evans	" "	Toronto, Ont.
M. R. Davis	" "	Kingston.
P. D. Brunelle	" "	Quebec.
R. Collister	" "	Victoria, B.C.
John Dodds	Inspector of Boilers and Machinery	Toronto, Ont.
E. W. McKean	" "	"
T. P. Thompson	" "	Kingston, Ont.
Wm. Laurie	" "	Montreal, P.Q.
L. Arpin	" "	"
J. Samson	" "	Quebec, P.Q.
J. P. Esdaile	" "	Halifax, N.S.
W. L. Waring	" "	St. John, N.B.
J. A. Thomson	" "	Victoria, B.C.
C. P. Phillips	" "	Rat Portage Ont.
Frank M. Richardson	" "	Vancouver.
Douglas Stevens	Inspector of Dominion Steamers, &c	Halifax, N.S.

OUTSIDE SERVICE, MARINE BRANCH.

The number of persons employed in the Outside Service on June 30, 1902, was as follows :—

Superintendent of lights and light-keepers, &c., in Ontario and above Montreal	190
Officers of agency in the city of Quebec and light-keepers, fog-whistle-keepers, crews of light-ships, &c., at or below Montreal, in the province of Quebec	171
Agent, clerk, messenger, superintendent of light, light-keepers, fog-whistle-keepers, attendance at humane establishments, &c., in Nova Scotia	233
Agent, clerk, messenger, superintendent of lights, light-keepers, fog-whistle-keepers, &c , in New Brunswick	106
Agent, foreman of works, messenger and light-keepers, in Prince Edward Island	49
Agent and light-keepers in British Columbia	35
Officers and crews of Dominion steamers and vessels, including Fisheries Protection Service	424
Coxswains of life-boats	25
Inspectors of steamboats	19
" shipments of live stock	4
Examiners of masters and mates, and clerk to chairman of Board	16
Officers and servants in marine hospitals	18
Shipping masters	35
Harbour masters	218
Officers of observatories, meteorological observers, &c., receiving pay	166
Hydrographers and engineers at Ottawa	10
Receivers of wrecks	45
Wharfingers	181
Making a total of	1,916

For the previous year the number was 1,941. In addition to the 1,916 mentioned above, there are 76 registrars of shipping, who act under the direction and control of this department, but are, at the same time, collectors of customs at various ports of registration, and receive no salary or fee in their capacity as registrars. There are 95 measurers or surveyors of shipping throughout the Dominion who act as officers of this department, and are remunerated from their fees of office, although in addition to such office, many of them hold positions in the customs service. Also, in addition to the above, by Orders of Council of April 21, and December 2, 1874, the chief officer of customs at each port in the provinces of Quebec, Nova Scotia, New Brunswick, British Columbia and Prince Edward Island, where no separate shipping office has been established, is to be held and deemed a shipping master, is to receive the fees, make the yearly returns to the department, and act in that capacity under its directions.

DOMINION STEAMERS.

'ABERDEEN.'

The *Aberdeen* is an iron screw steamer 180 feet long, 31 feet broad, and 16 feet deep; her tonnage is 674 gross, and 266 net. Her captain is Sigismund Bélanger, and her crew consists of 36 all told.

The *Aberdeen*, on July 1, proceeded down the St. Lawrence river and supplied lighthouses as far as Magdalen Islands, Bird Rocks and Bryon Island. When this work was completed the steamer went to Charlottetown for fresh water for the boilers and thence to Pictou for coal. The bunkers were filled and a considerable quantity of coal placed in the hold. The vessel then started on the return trip and supplied some of the stations with coal on her way up the river, arriving in Quebec on August 3. She immediately began to take in supplies for lighthouses and left Quebec on August 14 for the Straits of Belle Isle to supply fog-alarms and lighthouses. Colonel Anderson, chief engineer of the department, made an inspection of the lighthouses and fog-alarm stations in the Straits of Belle Isle, Cape Race and Cape Ray. This work was completed about August 29, and the steamer called at St. John's, Newfoundland, from there she went to Sydney for coal and returned to Quebec on September 12.

On October 4, the *Aberdeen* entered upon the buoy service on the St. Lawrence river, and afterwards took in supplies at Quebec and proceeded down the river, supplying lighthouses as far as Belle Isle. When this work was completed the steamer went to Sydney for coal, and thence to Bird Rocks. She then proceeded to Pictou, and from there returned to Quebec. The vessel was engaged in lighthouse service until November 24. After that date she was engaged in taking up gas buoys and landing them on the Queen's Wharf, Quebec.

The *Aberdeen* left Quebec on November 28 for Halifax, to engage in the service of the Nova Scotia agency. On her way the steamer lifted the automatic buoys of Prince Edward Island, and landed them at Charlottetown on December 2. She then resumed her trip to Halifax, calling at Pictou on the way and performing buoy service. She arrived at Halifax on December 13. Various work was performed up to December 19, when the *Aberdeen* proceeded to Sable Island, returning to Halifax on December 26. During the year 1901, the *Aberdeen* ran about 13,000 miles and consumed 1,762 tons of coal. The steamer was continued in the Nova Scotia agency in supplying lighthouses and fog alarm stations until May 27, 1902, on which date she arrived at Quebec.

Her first trip in 1902 down the St. Lawrence river was begun on June 16, and the steamer was engaged in supplying lights on the river up to July 1.

'LANSDOWNE.'

The *Lansdowne* is a wooden steamer, commanded by Captain George W. J. Bissett, and has a crew of 34 men in all. Her dimensions are 188 feet in length, 32 feet in breadth, and 15 feet in depth; gross tonnage 680, and registered tonnage 463.

This steamer was employed in the Nova Scotia agency on July 1, 1901, attending to the coast buoy service and delivering lighthouse supplies and coal to fog-alarm stations and other work of a similar character. The *Lansdowne* returned to her own

district in New Brunswick on July 25, and immediately began loading lighthouse supplies for the lighthouses in New Brunswick. The lighthouses supplied extend along the coast of the Bay of Fundy.

The work was pretty well accomplished by September 8, and the work of attending to the large automatic coast buoys was begun. This service occupied the vessel's time until October 25, when a trip of inspection of lighthouses was begun by the Chief Engineer, Agent and Inspector of Lights, and completed on November 7. The steamer was still employed in the New Brunswick agency until November 20, but owing to rough and stormy weather not much work was accomplished.

The *Lansdowne* was again ordered to Halifax to resume work in that agency, being the only government vessel available for such service in the both agencies. The work in the Nova Scotia agency was completed on December 28, when the *Lansdowne* returned to St. John and resumed buoy service until January 11, 1902.

The vessel was placed in winter quarters on January 12, and the work of inspection for repairs was begun. Extensive repairs were made to the hull, and in order to do this the steamer was placed on Hillyards blocks to examine and scrape the bottom and paint it. The steamer received a general overhauling, caulking and painting.

The machinery received a general overhauling, and was put in good condition. The main boiler, however, was found to be impaired, and consequently the steam pressure was reduced. Tenders will be invited for a new boiler to replace the old one, and this steamer will thus be made serviceable for several years.

The painting was carefully done outside, and the dardenelles, saloon, mess rooms, state rooms, berths and forecastle were painted with care. The steamer was taken off the blocks and taken to the ballast wharf and the work of repairs continued. The ship was put in commission on June 18, having been nearly five months undergoing repairs.

He first work was in connection with placing the bell boat at Partridge Island, and the buoy service was continued by changing the several automatic buoys in Yarmouth roads and elsewhere up to July 1.

'MINTO.'

The *Minto* is an iron steamer 225 feet long, 32·6 feet in breadth, 20·6 feet in depth, gross tonnage 1,089, net tonnage 371; indicated horse power 2,900, and nominal horse power 216. The steamer is commanded by Captain Andrew Finlayson, and has a crew of 39 in all.

The steamer *Minto* left Charlottetown on the 22nd June, 1901, for Quebec and took on board His Excellency the Governor General, Lady Minto and suite for a tour of the lower St. Lawrence, Gulf of St. Lawrence and the Maritime Provinces. The trip occupied until July 26. The steamer then returned to Charlottetown and was laid up for cleaning and repairs until August 31.

On the morning of the September 1 fire was discovered in the lower engine room space and it was found impossible to put out the fire without the aid of the City firemen. Considerable damage was done but men were immediately put to work and repairs made.

On September 12 the *Minto* left Charlottetown for Quebec to assist in the reception of their Royal Highnesses the Duke and Duchess of York. The steamer returned to Charlottetown on September 24 and remained there until November 18 when her crew was shipped and the vessel sent to a coaling port.

The season was a very open one and the *Minto* did not enter upon the winter service until January 6, 1902, when the winter service was begun between Charlottetown and Pictou. One round trip was made but the ice in Hillsboro Bay and the Strait became so heavy that the Charlottetown-Pictou route was abandoned and the steamer was placed on the route between Georgetown and Pictou. The service between the two latter places was begun on January 10. The service was fairly regular until February 12, when the *Minto* was caught in heavy ice off the end of Pictou Island and remained fast until February 15. She was then able to get into Georgetown.

From February 18 until March 4 the steamer continued on the Georgetown-Pictou route and was then placed on the Charlottetown-Pictou route, making all the trips that it was possible to make.

The *Minto* made 51 round trips during the winter of 1901-02, she carried 1293 passengers, and handled 77,813 packages of merchandise, weighing 3,705 tons. Her gross earnings amounted to $8,578.45. Mails were occasionally carried by the *Minto*, during the winter season, but the bulk of the mails were carried by the *Stanley* which was running between Summerside and Cape Tormentine during the winter.

The steamer was laid up on March 29, 1902. On May 5 the *Minto* was placed at the disposal of the Charlottetown Steam Navigation Co., while their two steamers were undergoing repairs at the marine slip at Pictou. The *Minto* was placed on the marine slip for cleaning and painting her bottom and repairs to plating on May 22 and on June 21 she returned to Charlottetown and was laid up at her berth.

'STANLEY.'

The *Stanley* is an iron steamer commanded by Captain Angus Brown, and has a crew of 36 in all. Her dimensions are: length 207 feet, breadth 32 feet, and depth of hold 19 feet, tonnage 914 gross, and 395 registered.

On June 24, 1901, the *Stanley* was placed at the wharf in Charlottetown to undergo repairs. The repairs consisted of taking out a condemned donkey boiler and supplying a new and improved one and installing a full service of electric light apparatus. The main boilers were overhauled and extensive repairs made to the machinery by Messrs. Bruce Stewart & Co. The engineers and some of the firemen assisted in the repairs. These repairs were completed with the exception of a new funnel for the donkey boiler on December 9.

The *Stanley* was sent to Pictou for coal and took in 300 tons with a view of beginning the winter service for the first time between Summerside and Cape Tormentine. The steamer *Northumberland* of the Steam Navigation Company, which plies between Summerside and Pointe du Chene, N.B., was able to continue her regular trips until January 3.

The *Stanley* was then put on the route for the purpose of carrying passengers, mail matter and freight, between Summerside and the mainland. Although the season was favourable the *Stanley* was unable to keep up her work regularly owing to the difficulty

of entering and clearing from Summerside Harbour. On the 3rd of February it was found necessary to cut the steamer out and about 100 men were employed for that purpose. On the 6th of the same month the steamer was out in the strait all night. On a trip made about the 19th February the steamer was caught in the ice and compelled to run to Charlottetown. She, however, returned to Summerside and continued her trips until the 2nd April, when she left Summerside for Charlottetown.

This service was experimental, and although not altogether satisfactory the work was done by the *Stanley* as well as could be expected.

The mails between Prince Edward Island and the mainland were principally conveyed by the *Stanley* making the usual ice boat mail service unnecessary. The steamer carried 982 passengers, which of course are included in the trips both ways, 14,552 packages of merchandise, principally small packages, were carried and her earnings amounted to $2,699.20 for the season. The number of round trips between Summerside and Cape Tormentine was 54.

On April 15, the *Stanley* began the work of placing the automatic whistling buoys on the coast of Prince Edward Island and in the vicinity of Cape Tormentine, on the New Brunswick side. On May 6, the steamer was placed in the Nova Scotia agency for the purpose of supplying lighthouses and performing coast buoy service, and at the end of the fiscal year was still employed in the same work.

'BRANT.'

The *Brant* is a wooden steamer 100 feet long over all, 19 feet in breadth, and 8 feet deep. Her tonnage is 141 gross and 57 net. She is commanded by Captain D. Mackinnon, and has a crew of 12 all told.

The steamer *Brant* was engaged in the lighthouse service of the Prince Edward Island Agency from July 2, 1901, to the 18th of that month, on which date she entered upon the Fisheries Protection Service.

She resumed the lighthouse service on August 14, and continued in it until December 31, conveying materials for the construction of lighthouses and supplying lights. In consequence of the openness of the season the steamer was engaged in this service until the end of the year.

All the crew were then paid off with the exception of the captain, chief and second engineers, one fireman and a watchman, and the steamer was put into winter quarters. During the time she was laid up the engineers and fireman took down, overhauled and set up the machinery. The steamer was also cleaned up and painted by the crew, beginning on April 1, 1902.

On April 15, the *Brant* entered upon the Fisheries Protection service and was engaged in it for a week; the work of conveying materials for repairs to lights, coal to fog-alarms and supplies to lighthouses was then taken up and the steamer was engaged in this service up to July 1.

The old propeller and rudder were taken off the *Brant* in June last and a new propeller and rudder supplied. It was found that the acid from the muntz metal bottom had eaten away the rudder frames.

'QUADRA.'

The *Quadra* is an iron steamer 174 feet long, 31·1 feet in breadth, and 13·6 feet in depth. Her gross tonnage is 573·30, and her registered tonnage 265·25. This steamer is commanded by Captain John T. Walbran, and has a crew of 21 all told.

During the month of July, 1901, the steamer *Quadra* landed material at Lawyer Island for the construction of a lighthouse on the northern island of the group and the steamer was employed also in making a survey of the Middle Passage, entrance to the Skeena River. In August a beacon was erected on White Islet, Strait of Georgia and lumber delivered at Carmanah for repairs at the station. Supplies were also taken to Discovery Island and Race Rocks for the light stations. The northern lighthouses were visited in September and the examination of the Middle Passage continued and finished. At the close of September and during the early days of October the *Quadra* joined the fleet on the Pacific Station and acted as one of the escort to the Duke and Duchess of York when visiting British Columbia.

The steamer during the month of October conveyed supplies to the Gulf lighthouses, placed a fairway buoy off Portier Pass and performed other buoy service. A party of Provincial Police was conveyed to Kingcome Inlet where several Indians were arrested for lawlessness, in the month of November. The *Quadra* also visited all the northern lighthouses during the same month.

During the month of December the steamer was employed in replacing buoys in Haro Straits and conveying material for repairs to Entrance Island station. On January 4, 1902, the steamer was put out of commission for her annual overhauling.

The *Quadra* was again placed in commission on March 10, and a tour of inspection of the light stations on the West Coast and Straits of Georgia was made and stores delivered. On her return to Victoria the Northern lighthouses were visited.

In April the ship was placed in the graving dock at Esquimalt for her annual cleaning and painting of bottom. The buoy service in the southern waters of British Columbia was then continued. In June a cruise was made along the West Coast in search of a missing sealing schooner named *Hatzie*. On the return of the steamer to Victoria she was sent to make a survey in Trincomali Channel for the rock upon which the s. s. *Victoria* struck. The rock was found and buoyed. The steamer was then engaged in establishing a magnetic range in Vancouver harbour and afterwards conveyed workmen and material to Cape Beale for making repairs to the lighthouse at that station. This completes the work of the *Quadra* up to July 1, 1902.

'DRUID'.

This is a new steamer built by Fleming & Ferguson, of Paisley, Scotland. The tender of the builders was $110,960.00 but a change in the position of the boilers from three abreast to two abreast and one ahead, was deemed necessary for a better arrangement of space. This work made an additional cost of $2,314.30 making the total cost of the steamer for hull and machinery $113,274.30. This does not include the cost of furnishing the steamer nor the cost of inspection. The accounts for furnishing the boat have not been received up to date.

The dimensions of the *Druid* are as follows, viz.: length, 160 ft., breadth 30·1, depth in hold from tonnage deck to ceiling amidships 12·5 ft. Depth from top of deck at side amidships to bottom of keel 13·38 ft. Length of engine-room, 50·8 ft. The gross tonnage is 503·26 and the registered tonnage 148·55. Engines, triple expansion, two sets, diameter of cylinders 13″, 21″ and 34″, length of stroke 34″, steam working pressure 180 lbs.

This steamer was built for the purpose of taking the place of the old *Druid* which had been condemned as unfit for use. She will be employed in the Quebec agency, principally in connection with buoy service, placing and taking up automatic, gas and other buoys.

The *Druid* was launched at Paisley, on May 6, 1902, and sailed for Quebec on July 26. She arrived at Quebec on August 8, making the passage in 13 days, which is excellent time for a boat of her size. The steamer was immediately employed in the Quebec agency.

'LADY LAURIER'.

The *Lady Laurier* is at present under construction at Paisley, Scotland, in the shipbuilding yard of Messrs. Fleming & Ferguson. The tender price of this steamer was $184,983 but some changes have been made during construction and will increase the cost from $5,000 to $8,000. This does not include the furnishing of the steamer.

The crew has been selected and sent from Halifax to Glasgow to bring the steamer out. She is expected to arrive in Halifax during the month of December, and will be engaged in lighthouse and buoy service on the coast of Nova Scotia.

The length of the steamer is 210 feet, breadth 34 feet, depth moulded 18 feet. The *Lady Laurier* was launched on October 7, at Paisley, and the work of completion has been proceeding since that date.

This steamer is equipped with cable gear and will be employed by the Department of Public Works for repairing, when necessary, the cable between Halifax and Magdalen Islands.

'SHAMROCK'.

The *Shamrock* is a steam barge 117 feet long, 25 feet in breadth and 9 feet 7 inches in depth. Her gross tonnage is 237 and her net tonnage 161. The *Shamrock* has a crew of 12 all told, including Mr. U. P. Boucher, buoy engineer, who is in charge of the steamer and directs her movements.

This steamer is employed in the buoy service between Montreal and Quebec on the St. Lawrence river; her captain is S. Sauvageau.

Owing to an accident to one of the cylinders of the *Shamrock*, the steamer was unable to proceed with the buoy service on the St. Lawrence river in the spring of 1902. The Department of Public Works kindly loaned the steamer *St. Francis* to take up the work of the *Shamrock*, and she was engaged in the work of placing buoys and lightships from April 11 to 13. On April 14, the *St. Francis* was replaced by the tug *St. Jean Iberville* also belonging to the Public Works Department. This steamer was engaged in

the work of attending to the buoy service until May 17, by which time the service was in very good order.

The repairs to the *Shamrock* were completed on May 23, and on that date the steamer left Sorel and took up her regular work of maintaining the St. Lawrence river buoy service between Montreal and Quebec. The vessel was engaged in this service up to the end of the season of navigation.

'CONTEST'.

Owing to the sale of the D. G. S. *Druid*, in December, 1900, the ss. *Contest* was chartered to take her place in the Quebec agency. Captain Keonig late of the *Druid* was placed in charge. This steamer was engaged in the buoy service on the St. Lawrence river from May 16 to November 15, on which date she was handed over to the owners.

The *Contest* was again chartered on April 1, 1902, to be engaged in the buoy and lighthouse service on the St. Lawrence river. She was still engaged in this service at the end of the fiscal year.

'SCOUT.'

The *Scout* is a wooden steamer 84 feet long, 25 feet 6 in. in breadth and depth of hold 8 feet 2 inches, having twin screws operated by high pressure engines. Her tonnage is 173·40 gross and 94·03 registered. She is in charge of J. F. Fraser, buoy engineer.

The steamer *Scout* was transferred from the Department of Railways and Canals to the Department of Marine and Fisheries. The steamer had been employed in the canal stretches in tending buoys. As all the buoys which had been the property of the Railways and Canals Department were handed over to this Department, the service is now included in the division on the St. Lawrence river, between Montreal and Kingston.

Since the steamer was placed under the control of the Marine and Fisheries Department, a chart room and additional cabin accommodation were provided and the steamer otherwise altered for carrying out the work. This included the installation on board of a gas compressor and the supply of three gas holders of 260 cubic feet capacity each.

The crew of the steamer consists of twelve men all told.

'BAYFIELD.'

The *Bayfield* is a wooden steamer 110 feet long, 18 feet wide and 9 feet deep. The steamer was engaged in the hydrographic survey on Lake Superior during the season of 1902. Mr. W. J. Stewart is in charge of this work. Capt. A. M. McGregor, is the sailing master of the *Bayfield* and the crew consists of 19 men in addition.

OTHER STEAMERS.

The *Acadia*, *Petrel*, *Curlew* and *La Canadienne*, are engaged in fisheries protection work and reports concerning them will be found in the Fisheries Report of this depart-

ment. The steamer *Lord Stanley* was purchased in 1901 for hydrographic survey work but was loaned by the Public Works Department in the season of 1902.

STATEMENT showing cost of maintaining Dominion Steamers, Marine Branch, from 1884 to 1902.

Year.	Cost of Maintenance.	Year.	Cost of Maintenance.
	$ cts.		$ cts.
1883-84	122,816 25	1893-94	142,487 42
1884-85	148,864 26	1894-95	129,899 80
1885-86	130,759 83	1895-96	150,519 41
1886-87	141,424 42	1896-97	136,940 11
1887-88	150,659 19	1897-98	117,644 39
1888-89	126,629 33	1898-99	145,270 75
1889-90	114,959 20	1899-1900	180,975 45
1890-91	111,437 03	1900-1901	195,484 75
1891-92	127,406 28	1901-1902	241,060,98
1892-93	146,521 77		

CERTIFICATES TO MASTERS AND MATES.

The report of Captain Bloomfield Douglas, R.N.R., Acting Chairman of the Board of Examiners of Masters and Mates, forms Appendix No. 13 of this report.

During the fiscal year ended June 30, 1902, the Board of Examiners of Masters and Mates held examinations at Halifax four times, at St. John six times, and at Quebec once, at Yarmouth seven times, making eighteen times in all. There were also eleven examinations held at Victoria, B.C., the papers and problems having been sent from Victoria to the chairman at Halifax for his inspection and confirmation.

At Halifax, one application was made for a foreign-going certificate of competency as master, and three for coasting and inland ; one foreign-going and three coasting and inland masters received certificates. Nine applications were made for foreign-going certificates of competency as mate, and three for coasting and inland ; eight foreign-going and three coasting mates received certificates.

At St. John, six applications were made for foreign-going certificates of competency as master, and six foreign-going masters received certificates. Four applications were; made for foreign-going certificates as mate ; and three mates received certificates. Four applications were made for coasting and inland certificates as master, and two as mate four coasting and inland masters received certificates, and two mates.

At Yarmouth, two applications were made for foreign-going certificates of competency as master and two foreign-going masters received certificates. Eight applications were made for foreign-going certificates as mate ; and eight mates received certificates.

At Victoria, B.C., three applications were made for foreign-going certificates of competency as master, and eight applications were made for foreign-going certificates as mate ; all received certificates.

At Quebec, one application was made for a foreign certificate of competency as mate; one mate's foreign-going certificate of competency was issued.

In supplement No. 1 to this report will be found a list of all who have obtained certificates of competency or service, either as master or mate during the year ended June 30, 1902.

INLAND AND COASTING CERTIFICATES.

During the twelve months ended June 30, 1902, the number of candidates in the Dominion who have passed, and obtained masters' certificates of service was ten, and two mates' certificates of service have been issued; the amount paid for these certificates was $88.

The number of certificates of competency as master was two hundred and sixty-five as mate, one hundred and eight, and the amount paid for these certificates was $4,623. The amount received for renewed certificates of competency and service was $78, which with the amount paid for service certificates makes a total of $4,789 received for masters' and mates' inland and coasting certificates issued during the twelve months ended June 30, 1902.

A list of certificates issued during the twelve months ended June 30, 1902, will be found in supplement No. 1 to this report.

The total amount of fees received on account of certificates of competency and service, sea-going, inland and coasting, during the fiscal year ended June 30, 1902, was $5,298.52, and the amount in detail expended on account of the service as will be seen by reference to Appendix No. 1 to this report, was $3,305.59, leaving a balance to this service of $1,982.93. The vote for this service was $5,000, and the sum expended to June 30, 1902, $3,305.59, leaving an unexpended balance of $1,694.41.

The following statement shows the total receipts and expenditure on account of masters and mates since 1871 :—

—	Expenditure.	Receipts.	—	Expenditure.	Receipts.
	$ cts.	$ cts.		$ cts.	$ cts.
For the fiscal year ended June 30, 1871.	1,410 45		For the fiscal year ended June 30, 1890.	4,117 83	2,186 00
" " 1872.	4,312 07	1,344 00	" " 1891.	4,255 24	2,586 00
" " 1873.	6,466 18	4,963 00	" " 1892.	4,363 88	2,194 00
" " 1874.	4,520 19	2,995 00	" " 1893.	4,116 99	2,484 00
" " 1875.	5,696 62	2,715 00	" " 1894.	3,721 33	2,907 04
" " 1876.	4,672 08	2,021 87	" " 1895.	3,758 29	3,974 50
" " 1877.	4,050 00	1,740 50	" " 1896.	4,062 82	2,307 50
" " 1878.	4,249 76	1,296 50	" " 1897.	3,536 29	3,754 00
" " 1879.	4,250 12	1,334 50	" " 1898.	3,335 40	4,800 00
" " 1880.	4,253 43	1,547 00	" " 1899.	3,568 26	4,486 50
" " 1881.	3,888 41	1,333 50	" " 1900.	3,750 69	4,221 50
" " 1882.	3,965 19	1,152 50	" " 1901.	3,730 25	4,808 24
" " 1883	4,021 20	1,314 00	" " 1902.	3,305 59	5,288 52
" " 1884.	3,909 59	9,437 50			
" " 1885.	4,324 15	2,897 00	Expenditure.	133,155 56	91,836 09
" " 1886.	5,245 28	2,152 00	Receipts	91,836 47	
" " 1887.	4,855 98	2,172 00			
" " 1888.	5,060 96	3,220 80	Excess of expenditure over		
" " 1889.	4,381 04	2,202 00	receipts	41,319 09	

WRECKS AND CASUALTIES.

The total number of casualties to British and Canadian sea-going vessels reported to the department, as having occurred in Canadian waters and to Canadian sea-going vessels in waters other than those of Canada, during the twelve months ended June 30, 1902, was 222, representing a tonnage of 105,814 tons register, and the amount of loss both partial and total, to vessels and cargoes as far as ascertained was $835,916. The number of casualties to inland vessels so far as have been reported were slight and unimportant.

The number of lives reported lost in connection with the casualties was 132. A statement of the wrecks and casualties will be found in supplement No. 1 to this report.

LIVE STOCK SHIPMENTS.

In last year's report the statements furnished by Messrs. George Pope and E. B. Morgan, inspectors of cattle shipments, Montreal, contained the total number of live stock shipped from the port of Montreal for the season of 1901. The returns for 1902 from these officers show a total shipment from Montreal for European ports to have been 77,156 cattle, an increase of 3,365 over 1901. The total number of sheep shipped during the season of 1902 was 45,830, a decrease from the shipments of 1901 of 8,708. The number of horses shipped from Montreal during 1902 was 549, a decrease of 789 for the year.

The cattle shipments from Montreal have fallen off considerably during the last two years from previous years. This is attributed to the shipment of Canadian cattle from United States ports to Europe.

While the shipments from Montreal to European ports have fallen off, they have increased at St. John, Halifax and Charlottetown. The shipments from St. John are principally made during winter months. From November, 1901, to July, 1902, both months inclusive, 11,614 cattle were shipped from St. John; sheep 6,858, and horses 6,374. The horses were shipped principally to South Africa. From Halifax, 162 cattle were shipped: from Charlottetown 195 cattle and 3,733 sheep and from Quebec 3,661 cattle and 3,407 sheep.

The total number of cattle shipped from the above ports to Europe was 92,788, and sheep 59,828. The total number of horses shipped to Europe and South Africa was 6,923. The above figures refer only to shipments inspected by the officers of the department.

The shipments in detail will be found in Appendix No. 6, in Part II of this report, and the total in another statement at the end of the report in Part II, page 147 as all the returns for the month of November were not received until after the cattle reports were in print.

METEOROLOGICAL SERVICE.

Two new stations were established in British Columbia, seven in the North-west Territories, three in Manitoba, five in Ontario.

There are now in the Dominion 323 stations using instruments which have been supplied by the Government; at 245 stations the observations are taken voluntarily.

The Departments of Agriculture in Ontario, Manitoba and British Columbia realize the importance of reliable meteorological data in connection with statistics of crops, acreage under cultivation, &c. Monthly charts containing notes on the leafing of trees and flowering of plants and other information are published.

In August, 1896, the publication of a daily weather chart was commenced, containing information gathered from meteorological observations taken each day at 8 a.m. This chart is displayed at Toronto at the Board of Trade, harbour master's office, and at some of the public schools. Private individuals obtain the chart, paying for it $4 per annum.

Forecasts for the various districts lying between Manitoba and the Maritime Provinces, for twenty-four hours, are sent by telegraph to all points where morning newspapers are published. A second forecast covering the current and following day is sent to all ports, both on the great lakes and on the seaboard, it also appears in most of the afternoon papers published in the Dominion.

Reports from stations in the Canadian North-west Territories and Manitoba are collected at Winnipeg and wired in one message to Victoria, B.C.; reports from Barkerville, Cariboo Country, Kamloops and New Westminster are sent to Victoria at the same time as to Toronto.

Dawson, in the Yukon District, has been equipped as a telegraph reporting station, and daily reports are telegraphed to Toronto and Victoria. This station, together with Port Simpson, of the British Columbia coast, will be invaluable in forecasting for the North-west Territories, an extension of work which it is proposed to make as soon as possible.

The forecasts and storm warnings have been maintained during the year and 1,522 warnings were issued from Toronto, and of these 1,278 or 84·0 per cent were verified. The storm warnings are appreciated by mariners and the forecasts of weather have been considered valuable by forwarders.

Seismological observations have been made by keeping in operation the seismograph in Toronto and Victoria. The work in connection with the Magnetic Observatory at Toronto, as well as the other operations of the Meteorological Service, are recorded in detail in the report of Mr. R. F. Stupart, forming appendix No. 4, in Part II of this report.

SIGNAL SERVICE.

The reports of the Superintendent of the Signal Service at Quebec and Halifax, contain valuable information to mariners. Mr. J. U. Gregory is superintendent of this service at Quebec, and Lieut. R. M. McCrory of the Royal Engineers, at Halifax.

Arrangements have been completed between the government of Canada and the Society of Lloyd's, whereby the following signal stations, maintained by the Dominion of Canada, have been included in Lloyd's system of reporting stations. Orders forwarded to Lloyd's can be notified to vessels by means of these signal stations, on the same terms and conditions as observations at Lloyd's signal stations, and vessels signalling to these

Canadian signal stations, will be reported to Lloyd's for insertion in the Lloyd's List and Shipping Gazette, and daily press, in the same manner as reports from Lloyd's signal stations.

LIST OF STATIONS.

Belle Isle.	Chateau Bay.
Cape Ray, Newfoundland.	South-west Point, Anticosti.
St. Paul's Island, Cape Breton.	West Point "
Cape St. Lawrence.	Cape Rosier, Gaspé coast.
Heath Point, Anticosti.	Fame Point "
Amherst Island, Magdalen Islands.	Cape Magdalen "
Point Amour, Forteau.	South Point "

The Government telegraph system was during the season of 1901, extended along the north coast of the Gulf of St. Lawrence to the Strait of Belle Isle, and Belle Isle has been connected by cable with the shore telegraph system.

Arrangements have been completed by the Department of Marine and Fisheries whereby all inward bound vessels showing their official numbers will be reported from marine signal stations in the River and Gulf of St. Lawrence immediately, and all reports will be promptly posted on the bulletin board of the Great North Western Telegraph Company's office in St. Peter street, Quebec, and on that of the Board of Trade in Montreal.

Weather and ice reports will be forwarded twice a day, as formerly, and similarly posted.

Arrangements have also been made for repeating all reports received to the pilot station at Father Point, so that pilots will be promptly advised of the locality of inward bound vessels.

A telegraph station was established by the Government of Canada at the light-house at Point Amour and included in the list of marine signal stations from which reports will be posted at Quebec and Montreal.

Wireless telegraph stations have been established by the Marconi Wireless Telegraph Company (Ltd.) at Belle Isle and Chateau Bay and these stations have been included in the list of marine signal stations.

REMOVAL OF OBSTRUCTIONS TO NAVIGATION.

The sum of $1,000 was appropriated by Parliament for the removal of obstructions to navigation. By reference to the statement of expenditure it will be seen that the sum of $1,325.25 was expended for the fiscal year. A statement in detail will be found in the report of the Chief Engineer of this Department, under the heading of Removal of Obstructions. The expenditure is given in detail for the amount that has been expended during the calendar year, and therefore includes payments which have been made since the end of the fiscal year.

LIFE BOAT STATIONS.

There are 27 stations in the Dominion of Canada. Most of these have crews that drill twice or three times a month, in the majority of cases twice a month. The men are paid $1.50 for each drill and an extra sum is paid when any service is rendered to shipwrecked mariners.

A new life-saving station was built at Long Point, near Port Rowan, Lake Erie. The building has a dining room, kitchen and sleeping apartments for the crew. A tramway was built from the boat-house to the water's edge, and a floating extension is attached to the tramway to allow the boat to be launched into the water from the tram-car. This apparatus works very satisfactorily. A new boat and equipment were supplied this station last year. The boat is a self-bailing surf boat, and has been reported a very satisfactory boat in a sea.

The crew at this station went to the assistance of the steamer *W. H. Stevens* of Buffalo, which was burned at Clear Creek on the night of September 7, 1902. After a long hard pull it was found that the crew of the steamer had already landed safely in their own boats, but the efforts of the crew were appreciated by the captain of the steamer.

Point Pelee.—The men at this station are employed three months in the fall of the year, having their quarters at the station. During the balance of the season of navigation they drill as at other stations, two or three times a month.

The life saving station at Point Pelee was removed from the extreme point of land about ¼ of a mile to a more secure place. The boat house which formerly rested upon the sand was placed upon cedar posts and a tramway was built to the water's edge upon which the boat is launched.

A new surf boat and equipment were supplied this station last season.

A new surf boat was also supplied the life-saving station at Goderich, and tenders were invited for the sale of the old boat.

Cobourg.—At Cobourg station, assistance was rendered the schooner *W. J. Suffell*, of Port Hope, on April 20, 1901. In trying to make Cobourg Harbour in a snow storm and heavy gale, the vessel missed the entrance and went to leeward of pier. The coxswain and crew of the life-boat went to her assistance and after seven hours' work managed to get lines to the pier and the vessel safely into the harbour.

Port Stanley.—At Port Stanley the schooner *Mineral State*, of Alpena, Mich., was wrecked about 200 yards from shore and south of the harbour, during a gale and heavy sea. The coxswain, J. R. Moore, and a volunteer life-boat crew, assisted by the tug *Gordon Brown* succeeded in rescuing the crew of five men who had been exposed for five hours. The coxswain and crew were granted $5 each for their services.

Other services were rendered by life boat crews, but full reports have not been received, consequently the full account of the assistance rendered cannot at present be given. By referring to appendix No. 9 of Part II, a statement of the boats and life-saving stations will be found, also the kind of boat at each station, and the amounts paid the coxswains and crews.

The stations in the maritime provinces are inspected by Mr. Bloomfield Douglas, R.N.R.

The *Jessie Drummond* while approaching the wharf at Cobourg in a gale stranded about 300 yards from the wharf. The crew consisting of six men and the stewardess were all rescued by the life saving boat and landed on the wharf. The lives of the crew were no doubt saved by the efforts of the life saving crew, as the vessel broke up shortly after stranding.

TREE PLANTING ON SABLE ISLAND.

The report of 1901, contains a description of tree planting on Sable island. The object of the tree planting is to prevent the destruction of portions of the island by gales, and the sea changing the surface by washing away the soil and sand.

Any system of protecting the coast by breakwaters is reported financially impracticable by the Chief Engineer, in view of the immense extent of coast line to be protected. The surface of Sable Island is covered with sand grass which to a certain extent prevents the shifting of the sand, but in all cases it has not an opportunity of taking root. The trees will be cultivated with a view of increasing the growth of the sand grass and also increasing the herbage on the island.

In conjunction with Professor Saunders, of the Experimental Farm, I purchased while in France, in 1900, some 82,000 trees. These trees were planted last year. Many deciduous trees were checked in their growth during the winter but most of them started into growth in the early spring of 1902. Unfortunately a northerly gale which occurred on the 6th June last, and exceeded 50 miles an hour, lasting for 36 hours, killed off all the new leaves and spring growth. The superintendent reports that he is of the opinion that very few will recover from this set back, but the coniferous trees consisting of Austrian Mountain and Maritime Pine have stood the winter well and have made a growth this spring, in some instances of 4 inches. The seedling pines have also stood the winter well. About 1,000 of these have recently been transplanted in clumps in the park. This park consists of an area about 8 acres and is used largely as a nursery.

COASTING TRADE OF CANADA.

By the provisions of chapter 83, Consolidated Statutes of Canada, being an Act respecting the Coasting Trade of Canada, no goods or passengers can be carried by water from one port in Canada to another except in British ships, but the Governor in Council may from time to time declare that the Act shall not apply to ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country. The Parliament of Canada was empowered to pass the Act alluded to under the provisions of the Imperial Act 32 Vic., chap. 11, intituled: An Act for amending the law relating to the Coasting Trade and Merchant Shipping in British Possessions, which came into operation in this country on its proclamation by the Governor General on October 23, 1869.

It was ascertained that the following countries, viz., Italy, Germany, the Netherlands, Sweden and Norway, Austro-Hungary, Denmark, Belgium and the Argentine

Republic allowed British ships or vessels to participate in their coasting trade on the same footing as their own national vessels;—the ships of Italy, by Order in Council of August 13, 1873 ; those of Germany, by Order in Council of May 14, 1874 ; those of the Netherlands, by Order in Council of September 9, 1874 ; those of Sweden and Norway, by Order in Council of November 5, 1874 ; those of Austro-Hungary, by Order in Council of June 1, 1876 ; those of Denmark, by Order in Council of January 25, 1877 ; those of Belgium, by Order in Council of September 30, 1879 ; and those of the Argentine Republic, by Order in Council of May 18, 1881, were admitted to the coasting trade of Canada.

The following Act entitled an Act respecting the Coasting trade of Canada, was assented to 15th May, 1902, and relates to the payment of duty on foreign built British ships.

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows :

1. In this Act, unless the context otherwise requires, the expression 'British ships' means and includes all ships belonging wholly to persons qualified or entitled to be owners of British ships, under the provisions of 'The Merchant Shipping Act, 1894,' or any other Act of the Parliament of the United Kingdom inthat behalf, in force for the time being.

(2.) For all purposes of this Act the expression 'the coasting trade of Canada' shall be deemed to include the carriage by water of goods or passengers from one port or place in Canada to another port or place in Canada.

2. No foreign-built British ship, whether registered in Canada or elsewhere, shall be entitled to engage or take part in the coasting trade of Canada unless such foreign-built British ship has first obtained a license for that purpose, which may be granted by the Minister of Customs.

(2.) The Minister of Customs shall issue such license to any foreign-built British ship, whether registered in Canada or elsewhere, upon application therefor and upon the payment of a duty of twenty-five per cent ad valorem on the fair market value of the hull, rigging, machinery, boilers, furniture and appurtenances of such ship.

(3.) This section shall not apply to any foreign-built British ship registered as a British ship prior to the first day of September, 1902.

3. No goods or passengers shall be carried by water, from one port of Canada to another, except in British ships ; and if any goods or passengers are so carried, as aforesaid, contrary to this Act, the master of the ship or vessel so carrying them shall incur a penalty of four hundred dollars ; and any goods so carried shall be forfeited, as smuggled ; and such ship or vessel may be detained by the collector of customs, at any port or place to which such goods or passengers are brought, until such penalty is paid, or security for the payment thereof given to his satisfaction, and until such goods are delivered up to him, to be dealt with as goods forfeited under the provisions of *The Customs Act.*

4. The master of any steam vessel, not being a British ship, engaged, or having been engaged, in towing any ship, vessel or raft, from one port or place in Canada to another, except in case of distress, shall incur a penalty of four hundred dollars ; and such steam vessel may be detained by the collector of customs at any port or place to or in which such ship, vessel or raft is towed, until such penalty is paid.

5. Penalties and forfeitures under this Act may be recovered and enforced in the manner provided by *The Customs Act*, with respect to penalties and forfeitures incurred under it, and as if imposed by it; and this Act shall accordingly be construed with reference to the said Act, and as forming one Act with it, and all words and expressions in this Act shall have the same meaning as the like words and expressions in the said Act.

6. The Governor in Council may, from time to time, declare that the foregoing provisions of this Act shall not apply to the ships or vessels of any foreign country in which British ships are admitted to the coasting trade of such country, and to carry goods and passengers from one port or place to another in such country.

7. Where by treaty made before the passing of 'The Merchant Shipping (Colonial) Act, 1869,' (that is to say before the thirteenth day of May, eighteen hundred and sixty-nine,) Her late Majesty, Queen Victoria, agreed to grant to any ships of any foreign state any rights or privileges in respect of the coasting trade of Canada, those rights and privileges shall be enjoyed by those ships for so long as Her late Majesty agreed, or His Majesty the King may hereafter agree, to grant them.

8. Chapter 83 of the Revised Statutes is repealed.

9. This Act shall not come into force until His Majesty's pleasure thereon has been signified by publication in *The Canada Gazette*.

REPORT UPON CASUALTIES IN THE ST. LAWRENCE RIVER.

During the season of navigation just closed there have been eleven important casualties in the St. Lawrence river, viz.:—*Indiana*, *Rustington*, *Monteagle*, *Manchester Importer*, *Sahara*, *Manchester Engineer*, *Iberian*, *Loango*, *Edward Seymour*, *Bangor Head*, and *Sicilian*. Acting under instructions from the department, Commander O G. V. Spain, commanding the Fisheries Protection Service of Canada, held a preliminary or informal inquiry in every case, the evidence being under oath. These reports are annexed.

The British Board of Trade, London, England, were advised of the Minister's decision to hold an inquiry in future into every casualty occurring in the St. Lawrence and its approaches, and were asked to co-operate with the department in this matter. They have kindly consented, whenever it is possible to do so, to order an inquiry in England into any casualty in these waters that may have escaped inquiry in Canada. Under this arrangement they have taken steps to inquire into the cases of the *Sahara* and *Monteagle*.

There appears to be, I regret to say, a certain amount of indifference in regard to these inquiries on the part of some ship owners when the conduct of their own officers is involved. The present discrimination against Canada in marine insurance rates is mainly, if not wholly, the result of the opinion entertained by underwriters in England that the accidents which occur from time to time in Canadian waters are owing to the dangerous navigation of the route. It is the policy of the department to demonstrate that this view is erroneous, and that it is only the inexperienced or careless captain or pilot who wrecks his ship. Under these circumstances it is not too much to expect that those who are engaged in the shipping trade, and whose interests are injuriously affected by the present condition of affairs, will assist the department in every possible manner when these inquiries are ordered.

The investigations this season have shown that the strandings in the St. Lawrence are not owing to the dangers of the route, or to the want of proper and efficient aids to navigation, and nowhere is this fact more apparent than in the inquiries held by order of the Board of Trade, during the past five years, into the casualties in the approaches to the St. Lawrence, including the coast of Newfoundland. The following precis of these cases cannot fail to be of interest. It will be noticed that in all but two instances the captain was found in fault, and either his certificate was suspended or he was reprimanded.

'GANGES.'

Montreal to Aberdeen, via Newcastle, general cargo and cattle, September 13, 1898.

This vessel was stranded off Ferolle Point, Newfoundland, on October 3, 1898. Court found that loss of vessel was due to her not having made good the courses set and steered on October 3, but that no default had been proven against master or any of the officers.

'SCOTTISH KING."

Antwerp for Boston and Baltimore, general cargo, November 20, 1898.

This vessel was stranded near Seal Cove, Newfoundland, on November 30, 1898. Court found that the wreck of the vessel was caused by her not making good courses, which were set too fine for passing Cape Race, and that she was navigated at too great a speed in thick weather, the master being ignorant of his position, which he had taken no steps to verify. The captain's certificate suspended for three months.

'PRODANO.'

Baltimore to Leith, general cargo, September 24, 1899.

This vessel was stranded at or near Wild Cove, St. Mary's Bay, Newfoundland, on October 1, 1899. Court found that the cause of the casualty was that the vessel was set to the northward of her course by a strong current, and that the master or any of the officers was not in default for such stranding.

'BAY STATE.'

Liverpool, G. B., for Boston, general cargo, September 25, 1899.

This vessel was stranded near Cape Ballard, south-east coast of Newfoundland, on October 3, 1899. The court found that the casualty was due to the vessel not having made good the course steered, but that the loss of the vessel might have been avoided had the chief officer carried out his instructions, and the court, although refraining from dealing with his certificate, considered him deserving of very severe censure.

'MAREOTIS.'

Quebec and Liverpool, cargo of lumber and deal ends, June 23, 1900.

This vessel was stranded near Codroy, Newfoundland, on June 25, in dense fog. Court found loss of vessel due to the default of master, and although his certificate was not dealt with, the court strongly censured him for not reducing the speed of the vessel earlier.

'CREWE.'

Sydney, C. B., to Bell Island, Conception Bay, Newfoundland, in ballast, May 16, 1901.

This vessel was lost on the west side of St. Shot's Cove, Newfoundland, on the 17th May, 1901. Court found that loss of vessel was caused through master neglecting to make sufficient allowance for the prevailing current to the northward, failing to take frequent soundings, and navigating at too great a rate of speed in thick weather. His certificate was suspended for six months.

'ASSYRIAN.'

Antwerp to Montreal, general cargo, May 26, 1901.

This vessel was stranded in dense fog on the coast of Newfoundland, about one mile north of Cape Race, on June 5. Fog signal at Cape Race was heard sounding for an hour before the vessel went ashore, but at the time it was considered to be the fog signal from a steam vessel. Court found that loss of vessel was due to incautious navigation of master, and suspended his certificate for three months.

'DELMAR.'

Dundee to Mobile, Gulf of Mexico, in water ballast, June 28, 1901.

This vessel was stranded about 13 miles north of Cape Race, Newfoundland, on or about 8th July, 1901, in a dense fog. Court found that vessel was navigated at too great a rate of speed; no proper look-out was kept; lead was not used at any time before the stranding, which neglect in the opinion of the court was wholly unjustifiable; that the casualty was caused by careless and negligent navigation on part of the master, and that the vessel was navigated neither with proper nor seamanlike care. Certificate suspended for six months, but on application of master court recommended that he be granted a chief mate's certificate during such period of suspension. The second officer was also censured. Court also made the following observation :—

'He (the captain) had plenty of searoom to the southward and westward, he was bound to a port two thousand miles distant, and why, in an uncertain position in thick weather and where irregular currents abound, he should attempt to make a point requiring the greatest care, rather than take a course which was comparatively safe, the court is at a loss to conceive.'

'ACIS.'

Galveston, U.S.A., to Hamburg, general cargo, July 20, 1901.

Vessel enveloped more or less in fog for two days before stranding. Court found that loss of vessel was due to the lead not being sufficiently used when the vessel was approaching Cape Race in thick weather. Master's certificate suspended for six months.

Court expressed the following opinion :—

'It is also unaccountable why the master should continue steering for some hours during a dense fog in the direction of a dangerous coast when he had the whole of the ocean clear before him.'

CONDENSED REPORT ON CASUALTIES TO STEAMSHIPS 'INDIANA,' 'RUSTINGTON,' 'MONTEAGLE,' 'MANCHESTER IMPORTER,' 'SAHARA.'

QUEBEC, P.Q., September 23, 1902.

SIR,—As the result of the commission appointed by the Honourable James Sutherland, Minister of Marine and Fisheries, dated August 30, 1902, we, the undersigned, commissioner and nautical assessors, respectfully condense our findings in the five cases dealt with, and report :—

(For full particulars see reports attached.)

(1) These five casualties were not caused by any inefficiencies or deficiencies in 'Aids to Navigation' on board any of the steamships.

(2) These five casualties were not caused—not a complaint being heard or reported of any one light, fog signal or buoy—by any inefficiencies or deficiencies in the 'Aids' to Navigation' on the route of the River and Gulf of St. Lawrence.

(3) These five casualties were caused by the inexperience or carelessness of some one or more of the captains, or officers, or pilots.

We recommend that owners only employ careful, experienced captains and officers; and also that the pilotage system of the St. Lawrence be put under government control.

We have the honour to be, sir,
Your obedient servants,

(Sd.) O. G. V. SPAIN,
Commissioner.

Assessors :

(Sd.) R. S. CLIFT,
Master Mariner and Marine Surveyor.

(Sd.) W. SIMONS,
Naval Architect, Port Warden.

Lieut-Col. F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

QUEBEC, P.Q., September 10, 1902.

SIR,—

Re 'INDIANA' INVESTIGATION.

In the case of the *Indiana* the whole proceedings from the time the captain of this vessel sighted land on our side on the way out, seem to have been most ex-

traordinary. In the first place, he sighted land, from what we can make out, somewhere about Scattarie on the Cape Breton coast, but from his position as placed by him on the chart and shown in his log, he should have been sixty (60) miles or thereabouts to the northeast, but he cannot give us any definite information exactly where he was.

The next place he sighted was St. Paul's Island, from which he says his distance was about five (5) miles. When asked how he knew this, he said it was simply a guess, and that he took no bearings whatever. After this, instead of shaping his course to pass about the same distance from Bird Rocks, he steered a course which brought Bryon Island ahead; then he had occasion to alter his course to the northward to take him outside of the Bird Rocks. After sighting these rocks, north of the Magdalens, the same thing happened, and no bearings or distances were taken from the lighthouse.

He then found himself off what he considered the Gaspé coast, but he was not sure about it. Cape Chatte was then sighted, but he was not sure about his distance from this place.

On the way eastward after loading in Montreal (the pilot left him as usual at Father Point) he ran a certain number of courses but he knows absolutely nothing about the deviation of his compass on any of them. This was the first time he was sailing the easterly courses, but instead of remaining on deck this particular night (June 24 last) which was fine, and watching the courses and lights and endeavouring to find out the difference between the courses made good and the courses steered, he took no means whatever to ascertain the error of his compass, although the pilot apparently did so and informed him that there was about one point of westerly deviation on his easterly courses; but the captain has no record of any deviation on easterly courses either in his scrap-log, the mate's log or the deviation book.

He was using a chart of a very small scale and told us that it was the best one he had, but upon going on board the ship on Saturday morning, the 6th instant, we found that he had a drawer-full of the most recent charts on a large scale, with the exception of the one from the Saguenay to the western end of Anticosti, which latter covers the ground over which the vessel went from Father Point to the place she went ashore near Mingan. We also found that he was not provided with sailing directions or a pilot book for the Gulf and River St. Lawrence; otherwise, the necessary aids to navigation on board the vessel were complete. The captain informed us that the owners had given him *carte-blanche* to order anything he considered requisite before leaving England.

On measuring off his lead line it was found it was considerably in error.

It was quite impossible either for the court or the captain, or his chief officer to lay down on the chart the courses and distances steered as the captain acknowledged that the entries in the log-book which he produced, with regard to these items were not to be depended upon and, as a matter of fact, when the captain and chief officer attempted to lay down these courses according to this book they went, in many cases, over the land.

When asked to point out the position that he thought the vessel was at 5.30 a.m., before the time of stranding on June 26 last, he indicated a position which was some seventy (70) miles to the southward.

On the eastward passage, he left Father Point at 8.30 a.m., and according to the gulf reports and also the evidence of the captain of the *King Edward* who passed down the river at the same time, the weather was clear, and vessels were reported passing various points both a.m. and p.m. on that day.

After carefully considering the whole case and examining all the witnesses possible, we find :

1. That the owners having given Captain Furneaux *carte-blanche* are not blamable for any inefficiencies or deficiencies in the 'Aids to Navigation' on board the steamer.

2. That this casualty was not caused by any inefficiencies or deficiencies in the Aids to Navigation' in the route of the Gulf and River St. Lawrence.

3. That Captain Furneaux was guilty of almost criminal carelessness in his navigation of the vessel and in neglecting to ascertain the deviation of the compass on easterly courses, and in using an inefficient chart, and in neither having nor reading sailing directions or pilot book for the St. Lawrence.

4. Regarding the charges of drunkenness against the captain and officers ; from the evidence of the witnesses examined, these charges have not been substantiated.

We therefore recommend that a formal investigation should be held into the case of the stranding of this vessel as soon as possible.

We have the honour to be, sir,
Your obedient servants,

(Sgd.) O. G. V. SPAIN,
Commissioner.

Assessors :

(Sgd.) R. S. CLIFT,
Master Mariner and Marine Surveyor.

(Sgd.) W. SIMONS,
Naval Architect, Port Warden.

Lieut. Colonel F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

QUEBEC, P.Q., September 11, 1902.

SIR,—

Re SS. 'RUSTINGTON' INQUIRY.

In reference to the informal investigation into the cause of the stranding of the ss. *Rustington* ; Captain Burnett commanding, on Barnaby Island, on August 1, last, we have, in the absence of the captain, officers and crew, only been able to obtain the evidence of parties who were not on board the vessel at the time of the casualty, also reports from the gulf in reference to the weather, the captain's notarial protest, together with the wreck register No. 19,003.

On or about July 20 last, the *Rustington* sailed from Fleetwood, Great Britain, in water ballast bound for the River St. Lawrence, and on this voyage all her courses would naturally be to the westward. On arriving in the St. Lawrence she called at Matane for orders on the 1st day of August last, and received them that day to proceed to Batiscan, above Quebec, to load. On the evening of the same day, during a fog, she was two to three miles off Bicquette by the sound of the fog-horn, waiting for a pilot; (in the Captain's own words) 'Being fog and unable to obtain pilot at Bic Island, turned round eastward; position at the time 2 to 3 miles off Bic (?) light-house (presumably Bicquette) by sound of horn. Set course E. by N. magnetic E. $\frac{3}{4}$ N. This course should have taken ship at least 8 miles off Rimouski Island.'

(?) The Captain altered his course to E. $\frac{3}{4}$ N. magnetic, fog still continuing, and proceeded down the river again and ran shore on the west end of Barnaby Island about twelve miles from Bicquette at 11.30 p.m., on the same day.

The vessel jumped up about 18 inches forward, showing that she was going at a fair rate of speed and her head was about south-east. She remained there until August 4, on which date Davie's wrecking appliances arrived and she was floated at 2 o'clock p.m., on that day, taken to Quebec and repaired. Loaded with spruce deals and sailed from that port on August 30, bound direct for Bristol, Great Britain.

We are of the following opinion :—

That the vessel was in a safe position, two to three miles off Bicquette Island.

We are unable to understand why the captain proceeded on easterly courses, evidently not knowing the deviation of his compass on these courses, to pass eight miles (to quote his own words) 'outside Rimouski Island'—wherever this may be. His compass must, if he steered the course he reports, have had considerable easterly deviation.

The ship went over a part of the river where there are good soundings and anchorage, and we cannot understand why he did not sound and anchor as he approached the land. It is a well known fact that a vessel steering for some weeks on westerly courses and then suddenly changed to the eastward, her courses steered cannot be relied upon, and especially in the vicinity of land.

After careful consideration of the matter and having heard expert evidence as far as possible, we have come to the following conclusion :—

1. So far as we have been able to ascertain, the casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' on board the vessel.

2. That the casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' in the route of the River St. Lawrence.

3. That the casualty was caused by the master unwisely steering from a safe position off Bicquette on an E. $\frac{3}{4}$ N. course, apparently not knowing the deviation of his compass on easterly courses, and ran ashore on the west end of Barnaby Island approximately twelve (12) miles away; off which remarkably good and reliable soundings and anchorage may be obtained for many miles. It is also very evident that he must have entirely neglected the use of his lead.

4. We have been unable to obtain any evidence as to the master's past record.

Taking all these facts into consideration we respectfully recommend that a formal investigation be held into the case of this vessel as soon as possible.

We have the honour to be, sir,
Your obedient servants,

(Sgd.) O. G. V. SPAIN,
Commissioner.

Assessors :—

(Sgd.) R. S. CLIFT,
Master Mariner and Marine Surveyor.

(Sgd.) W. SIMONS,
Naval Architect, Port Warden.

Lieut. Colonel F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa, Ontario.

QUEBEC, September 22, 1902.

SIR,—

Re SS. MANCHESTER IMPORTER.

In the investigation into the cause of the casualty to the ss. *Manchester Importer*, we ascertained the following facts :—

The steamer loaded a general cargo at Montreal, and sailed from there under the command of Captain Frederick Dundas, on the morning of August 22, and in passing Quebec at 7 o'clock p.m., of the same day, changed pilots, taking Alphonse Asselin as pilot for the Lower St. Lawrence. The ship experienced fine clear weather, passing through the Traverse at 12.30 a.m., of the 23rd., and passed Cape Salmon at 3.25 a.m., weather getting hazy, and ran ashore going full speed on the north side of White Island reef, at 4.45 a.m., same day, with weather heavy, light wind and smooth water ; remaining hard and fast, making water in Nos. 1 and 2 tanks and No. 1 hold. Assistance arrived from Quebec she was lightened and got off on August 26, taken to Quebec, repaired, re-loaded and sailed again on September 6.

The Harbour Commissioners of Quebec held an inquiry into the conduct of the pilot and courteously allowed us to be present and ask any questions we thought proper—*vide* report attached.

At the inquiry into the casualty to the ss. *Rustington* we examined Mr. Morin, President of the Pilots' Corporation, and Captain Gibson of the ss. *Kingstonian*, and as this is only a preliminary inquiry, we duplicate the evidence of these two gentlemen.

We also examined Captain W. F. Slayter, R.N., of H.M.S. *Ariadne* ; and visited the ss. *Manchester Importer*, examining very fully all the 'aids to navigation' on board, and we arrive at the following conclusion :—

The steamer left Montreal well found in 'aids to navigation', &c., at Quebec took on board Alphonse Asselin, pilot, and passed in clear weather through the Traverse at 12.30 a.m., under his charge, with the captain in bed, who left orders to be called if weather changed. At 3.25 o'clock a.m., when off Cape Salmon, the pilot sent the 2nd

mate to call the captain to tell him the weather was getting hazy, but he remained in bed; vessel proceeding full speed. At 4 a.m., the chief mate relieved the 2nd mate on the bridge; weather getting thicker. At 4.25 a.m., the fog signal on White Island light-vessel was heard distinctly on the starboard bow; the pilot ported the helm and vessel ran ashore on White Island reef, at full speed.

We are informed that the pilot has been suspended for six months, but as the greater part of that time there is no navigation in the river St. Lawrence, and the monetary loss is partly replaced by his confrères subscribing a sum of money for his benefit, it is tantamount to giving him a holiday.

We consider it the duty of a captain to be on the bridge day or night when going through narrow waters such as the Traverse and the North Channel, and we are of opinion that if Captain Dundas had been on the bridge after passing Cape Salmon, the casualty would not have occurred, but we attribute his imprudent confidence in his pilot to his inexperience in the trade, he having been here only twice before; and consider that owners should only put experienced captains and officers on steamers in this trade.

After reviewing the whole facts of the case we find:—

(1.) The casualty was not caused by any inefficiencies or deficiencies in 'Aids to Navigation' on board the steamer.

(2.) The casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' in the route of the River and Gulf of St. Lawrence.

(3.) The casualty was caused by an error of judgment on the part of the pilot and the inexperience of the master in the navigation of the St. Lawrence.

N.B.—(4.) We consider that the punishment of the pilot is inadequate, and that the pilotage of the River St. Lawrence should be under the control of the government, and that pilots be examined and tried by competent experts, and when suspended should be kept going up and down the river on steamers.

We recommend that as the pilot has been suspended no further inquiry be held, but that copies of the above be sent to the owners, and the British Board of Trade.

We have the honour to be, sir,
Your obedient servants,

(Sgd) O. G. V. SPAIN,
Commissioner.

Assessors:

(Sgd.) R. S. CLIFT,
Master Mariner and Marine Surveyor.

(Sgd.) W. SIMONS,
Naval Architect, Port Warden.

Lieut.-Col., F. Gourdeau,
Deputy Minister of Marine and Fisheries,
Ottawa.

Quebec, P.Q., September 23, 1902.

Sir,—

Re SS. 'Sahara'

In the investigation into the cause of the casualty to the ss. *Sahara*, we ascertained the following facts :—

This steamer loaded a cargo of rice at Rangoon, and sailed on April 12, 1902, for Montreal, under the command of Captain William Cave ; nothing occurring until 7.45 a.m., on June 10, when the vessel, off Father Point, failed to get a pilot, and weather getting foggy proceeded at 7.55 a.m., for Bicquette pilot grounds. Noon, dense fog ; 1.30 anchored two miles west of Barnaby Island in seven fathoms. At 2.30 p.m., fog clearing, proceeded ; 3.45 p.m., made out Bicquette Island ; 4.13 p.m., proceeded slowly, signalling for pilot. At 4.30 p.m., Bicquette Island abeam 1½ mile ; seeing no pilot schooner steamed into the southward, fog at the time setting in ; 5.16 p.m., anchored in seven fathoms, fog continuing. At 5.55 fog clearing, a pilot schooner was seen bearing W.N.W., weighed anchor and steamed towards the pilot schooner ; stopped to take the pilot from the schooner's boat, and the steamer drifted on to the South-west reef of Bicquette Island, partly filling Nos. 1, 2, and 3 holds, and the crew all went ashore as the vessel taking a heavy list to port it was thought it would capsize. Assistance being obtained from Quebec, vessel got off at 11.40 p.m., of June 17, and proceeded to Montreal, discharged there and went to Quebec where she was repaired and loaded a cargo of lumber for the United Kingdom.

After carefully examining the captain's extended protest and wreck report ; and weather reports for the River and Gulf of St. Lawrence for June 10 ; also having heard the evidence of Captain Davie and Pilot Joseph V. Gourdeau, we have come to the following conclusion :—

That the vessel sailed from Rangoon well found in 'Aids to Navigation' &c., and was carefully navigated till she arrived off Father Point, where the master showed undue haste in only remaining ten minutes for the pilot who was waiting for him there ; he, however, seems to have carefully navigated his vessel, taking frequent soundings and anchoring once, and then again anchoring above and inside Bicquette Island looking for the pilot schooner ; weather on clearing, he saw the pilot schooner at anchor to the west-north-west. As it was calm the schooner could not get under weigh and he got the steamer under weigh to meet the boat containing Pilot Gourdeau which the pilot schooner was sending. As he neared the boat he stopped his engines and did not notice the strong ebb tide which, in the first half, sets to the north-east, setting him directly on to the south-west reef, and not parallel to the shore, consequently, just before the pilot got to the steamer she struck on Bicquette south-west reef and sustained much damage to hull and cargo. The captain and officers seem to have worked heartily in conjunction with the assistance sent from Quebec.

As Bic Islands and Bicquette lighthouses were plainly in view, we must attribute the casualty to the captain's impulsive imprudence and to his inexperience in the trade

in not knowing the set of the first half of the ebb tide, and his undue haste in not waiting at Father Point for his pilot.

After carefully reviewing the whole facts of the case we find :—

(1.) This casualty was not caused by any inefficiencies or deficiencies in 'Aids to Navigation' on board the steamer.

(2.) This casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' on the route of the River and Gulf of St. Lawrence.

(3.) This casualty was caused by the imprudence of the captain in too hastily leaving Father Point, and lack of experience in not knowing the set of the tides in the vicinity of Bic Island.

We therefore recommend that a formal inquiry be held into the cause of this casualty.

We have the honour to be, sir,
Your obedient servant,

(Sgd.) O. G. V. SPAIN,
Commissioner.

Assessors :

(Sgd.) R. S. CLIFF,
Master Mariner and Marine Surveyor.

(Sgd.) W. SIMONS,
Naval Architect, Port Warden.

Lieut.-Colonel F. Gourdeau,
Deputy Minister of Marine and Fisheries,
Ottawa.

Quebec, P. Q., 23rd September, 1902.

Sir,—

Re SS. 'Monteagle.'

In the investigation into the cause of the casualty to the ss. *Monteagle* we have ascertained the following facts :—

The steamer loaded a general cargo at Bristol and sailed July 2, for Montreal, under command of Captain W. L. D. Chapman, R.N.R., experienced several days of foggy weather, passing Cape Ray at 8.09 a.m., on July 11, fine clear weather, and Bird Rocks at 1.33 p.m., same day ; Gaspé light at 1 a.m., July 12 ; Rosier light at 1.21 a.m., and at 2.35 a.m., ran ashore on Serpent Reef, 7¼ miles east of Fame Point, filling Nos. 1 and 2 holds, vessel going full speed and fine clear weather—*vide* Captain's extended protest and extract from log. Assistance being obtained from Quebec and Montreal, vessel got off at 11.50 p.m., on July 17, proceeded to Montreal, discharged cargo and sailed for New York to be repaired, where she now lies.

After going fully into the evidence of Captain Chapman and Pilot St. Laurent, and examining the weather reports for July 10 and 11, we arrive at the following conclusion :

The steamer left Bristol well found in 'Aids to Navigation,' &c., had varying weather across the Atlantic and experienced several days of foggy weather in which

she had been carefully navigated, passing Cape Ray, Bird Rocks and Gaspé, the latter at 1 a.m., with the 2nd mate on the bridge. Tomlinson, quartermaster, took the wheel at 2 a.m., by the courses steered the vessel was at a safe distance and at 2.25 a.m. the captain altered the course to north 51 west true, which would be north 22 west magnetic, which should take her further off the land. We are of opinion that the 2nd mate must have altered this course to almost straight ashore, as she struck at 2.35, breaking day; houses on shore visible and Fame Point light clear and distinct.

When the captain showed the second mate Fame Point lighthouse 8° on the port bow at 1.35 a.m., it would have been impossible for the vessel to have arrived at Serpent Reef except the light had been brought on the starboard bow. If the captain had given a course to take the ship ashore, the night was so fine, the land so bold and visible, that the second mate should have put her head off and called the master.

In view of the past record of the second mate, we can only conclude that he was to blame for the casualty.

The master and officers, after the stranding, seem to have made vigorous and successful efforts, in conjunction with the assistance sent, to float the vessel.

From the records of the gulf and river reports for July 10 and 11, we find there is no foundation for the belief that there was any abnormal current on the night of the 11th, and we find that the buoy on Serpent Reef which was washed away previous to that date, would not have prevented the casualty had it been in its place. We find that the buoy has since been replaced.

The second mate having been discharged in New York some time ago, it is impossible to examine him, but we consider that after the complaint of the captain in regard to a previous casualty on the west coast of Africa, the owners should have relieved him (the captain) of this officer.

After reviewing the whole facts of the case we find :—

(1.) The casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' on board the ss. *Monteagle*.

(2.) The casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' on the route of the River and Gulf of St. Lawrence.

(3.) This casualty was caused by the lack of seamanship and judgment displayed by the second mate in either steering the vessel ashore, or not altering his course when he saw the vessel approaching the land.

We therefore recommend that a formal investigation be held into the case of the stranding of this steamer.

We have the honour to be, sir,
Your obedient servants,

(Sgd.) O. G. V. SPAIN,
Commissioner.

Assessors :

(Sgd.) R. S. CLIFT,
Master Mariner and Marine Surveyor.

(Sgd.) W. SIMONS,
Naval Architect, Port Warden.

SS. 'Manchester Engineer.'

In the investigation into the cause of the casualty to this vessel, the following facts were ascertained :—

On her last trip inwards she came by the Straits of Belle Isle ; the master laid off the course of his ship from the South point, Anticosti, so as to pass Fame point, three miles off. When the vessel arrived in the vicinity of Fame point at 10.15 a.m., on October 15, 1902, the weather being perfectly clear, with a rather strong north-west wind, she was steering north-west by west, and a black buoy was observed on the port quarter, which evidently must have been Fox River buoy, but which the master mistook for Serpent reef buoy. About one-half an hour after sighting this first buoy, another black buoy was observed right ahead ; the master, for some reason best known to himself, took this for a buoy adrift, and passed it about a cable's length off his starboard side, and five minutes afterwards the ship struck.

This disaster was entirely due to a very grave error in judgment on the part of the captain of the ship, which he himself acknowledges.

I respectfully recommend that a formal inquiry be held into the causes which led to the stranding of this vessel.

SS. 'Loango.'

This vessel, on November 6 last, on her way from Three Rivers to Quebec, grounded at 7.30 p.m. on Cap Rouge point. The *Loango* was wholly in charge of the pilot at the time of the casualty, he himself being at the wheel and steering the ship with his own hands. It was a very dirty night and drizzling rain.

I attribute the grounding of the *Loango* to the over-confidence of Pilot Frenette in considering that he was capable of steering the vessel on such a dark night ; if the ship had come to anchor, the casualty, no doubt, could have been avoided.

As the vessel, at the time of the accident, was entirely under the guidance of Pilot Alfred Frenette, who has had his certificate suspended, I consider that a formal inquiry is not necessary.

SS. 'Bangore Head.'

This vessel left Swansea, South Wales, on October 31, 1902, with a cargo of coal, and had very bad weather nearly the whole way out. They passed Bird Rocks about 14 miles off, saw Cape Gaspé, and all the lights right along, and bearings were taken in nearly every case, the last taken being at Cape Chat, and various courses were steered along the land. Matane light was bearing west $\frac{3}{4}$ south by compass, and Ste. Felicité was bearing south-east $\frac{1}{2}$ east by compass just before the ship struck ; the log showed 34 miles from Cape Chat, and the depth of water was 7 fathoms immediately after she struck. The *Bangore Head* was drawing 22 ft. $11\frac{1}{2}$ in. aft, and 22 ft. 4 in. forward, on leaving England.

The master claims that she struck either a sunken wreck, or a boulder that had been carried down by the ice. I am, however, of the opinion that the vessel was too close into the south shore.

In view of the 'Notice to Mariners,' issued by this department on May 6, 1902, in which masters of vessels are strongly warned (copy attached hereto) to make full allowance for strong downward current, and especially in thick weather, to give the south shore a good berth, which may easily be done, as the estuary is clear and open for a width of 25 miles, as far up as Bic Island. Hugging the south shore is only incurring unnecessary risk for the saving of a little time. Constant use of the lead in thick weather is also urged.

I consider this a case for a formal inquiry.

DOMINION OF CANADA.

NOTICE TO MARINERS.

No. 31 of 1902.

(ATLANTIC NOTICE No. 18.)

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

QUEBEC.

(119) Lower St. Lawrence—Gaspe coast—Allowance for downward current.

Several vessels have stranded during past seasons in the neighbourhood of Matane, and these vessels have invariably been inward bound. Inquiries made on the spot by the chief engineer of this department, together with examination of the logs of some of the stranded vessels, show that most, if not all, of these accidents have been caused by want of allowance for the very strong downward set of current on that part of the Gaspé coast. The officers navigating the vessels have changed their courses to port, on the assumption that they were above Matane, when in reality they were several miles farther east than their reckonings.

Mariners are reminded that the current is invariably down stream, both with the ebb and flood tides; and as such a current always strengthens during the ebb, it seems possible that at certain times its strength may be greater than is stated on the Admiralty charts. The indications which they give, together with some additional information secured by the tidal survey in this department, may be summarized as follows:—

From the mouth of the Saguenay to Cape Chat, the charts show a constant current, always down. (See charts 309 and 312; Cape Chat to Bic Island, and Bersimis to Saguenay.) This current occupies more than half the width of the river on the southern side. Its strength is stated to be from $1\frac{1}{2}$ to $2\frac{1}{2}$ knots. There is a weak flood in the opposite direction close in-shore, but it keeps closer in than vessels usually venture to go.

This current continues to follow the south shore as far as Cape Gaspé, where it leaves the mouth of the St. Lawrence. Off Fame point it usually occupies a width of about 12 miles next the shore; but under some conditions it is displaced and occupies a belt in mid-channel, between the Gaspé and Anticosti coasts. Its strength as far down as the offing of Fame point usually varies between 1 and 2 knots, but a speed of as much as $2\frac{8}{10}$ knots was there observed. (See reports of tidal survey.)

The coast is so bold, from Gaspé as far as Matane, that a vessel may be in 50 fathoms when within three miles of the shore. Below Matane the 30-fathom line is nowhere more than 2 miles from the shore. (See charts 307 and 309.)

Warning.—From the above it is clearly necessary to make full allowance for a strong downward current, and, especially in thick weather, to give the south shore a good berth, which may safely be done as the estuary is clear and open for a width of 25 miles, as far up as Bic island. Hugging the south shore is only incurring a quite unnecessary risk for the sake of saving time. Constant use of the lead in thick weather is also urged.

Variation in 1902: 21° W.
Source of information: Report of Chief Engineer, M. & F.
Admiralty charts affected: Nos. 307, 309, 312 and 2516.
Publication affected: St. Lawrence Pilot, vol. 1, 1894; pages 17-21.
Department of Marine and Fisheries of Canada file No. 13923.

F. GOURDEAU,
Deputy Minister.

Department of Marine and Fisheries,
Ottawa, Canada, May 6, 1902.

Pilots, masters or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notice of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada. Such communications can be mailed free of Canadian postage.

SS. 'Iberian.'

In the investigation into the cause of the mishap to this vessel, the following facts were ascertained:—

On her voyage to Quebec, the *Iberian* went ashore on Red Island Reef, at 5.50 o'clock, p.m., on October 30, 1902, while under the charge of Pilot Joseph E. Lachance. She was very seriously damaged, in fact so much so, that she has to remain in the dry dock at Lévis, for the winter. The master was down below at the time of the accident; the vessel was going 11½ knots, and the third officer was on the bridge. The night was quite clear and the weather fine.

I consider this casualty attributable to the pilot mistaking Red Island lightship for White Island lightship, and also to his leaving the bridge and going below, where he was at the time of the disaster. His certificate has been suspended for eighteen (18) months. I have also to point out that the master was down below when the vessel struck.

I consider a formal inquiry necessary in this case.

Barkentine 'Edward Seymour.'

In the investigation into the causes which led to the total loss of the barkentine *Edward Seymour* on the Island of Anticosti, with the loss of one seaman, the following facts were ascertained:—

This vessel left Cadiz, Spain, on September 6, 1902, loaded with salt and bound for Malbaie, Gaspé county, Quebec. The first land sighted on this side was Cape North,

Cape Breton. From this time on, until the vessel went ashore, they appear to have had more or less terrific weather, blowing a heavy gale and thick. It was absolutely impossible for the master to get any sights for some three days before she was wrecked, and he was depending entirely upon his dead reckoning. From all the information that could be obtained, the *Edward Seymour* appears to have been well found in every way as regards spars, sails, boats, &c.; she had three compasses, and the master said they were correct. The ship's logs and all documents were lost at the time she went ashore.

This casualty was not caused by any inefficiencies or deficiencies in the 'Aids to Navigation' in the route of the Gulf and River St. Lawrence.

This casualty, I consider, is not attributable to anything that can be called negligence on the part of the master or crew, but comes within the category of "fortuitous accidents."

I am of the opinion that a formal enquiry is not necessary in this case.

I have the honour, to be, sir,
Your obedient servant,

O. G. V. SPAIN,
Commissioner.

It will be seen from the foregoing reports of investigations that Commander Spain and Assessors Clift and Simons, do not attribute any of the casualties to inefficient aids to navigation, or a deficiency of such aids. While the casualties were due to other causes than deficiency in aids to navigation it is not claimed that improvements are not necessary, on the contrary the work of adding lighthouses, fog-alarms, gas buoys, warning buoys, beacons and other aids is steadily progressing. Tests are being made of different lighthouse apparatus, illuminants, sirens and other fog-alarms with a view of securing the most modern and powerful kinds. Experiments have been made with acetylene gas as an illuminant and information on the subject will be found in another part of this report. Tests have also been made of the Scotch siren operated by compressed air and an invention called the diaphone. These tests have been made for the purpose of selecting the most suitable aids for Canadian waters generally as well as the St. Lawrence route.

F. GOURDEAU, Lt.-Col.,
Deputy Minister of Marine and Fisheries.

Ottawa, December 22, 1902.

ANNUAL REPORT OF THE CHIEF ENGINEER OF THE DEPARTMENT OF MARINE AND FISHERIES.

The Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit a report of the work done in the several services under the supervision of this office during the twelve months ended November 30, 1902.

This embraces most of the technical work at departmental headquarters, including the construction and maintenance of lighthouses, lightships, fog-alarms, buoys and beacons; the supervision of construction and repairs of lifeboats; the administration of the vote for the removal of wrecks and obstructions in navigable waters; tidal and current surveys; hydrographic surveys, and the publication, examination and correction of hydrographic charts; construction of and repairs to fish hatcheries and refrigerators; engineering points in connection with the construction and maintenance of fish-passes; supervision of surveys of oyster beds; examination of applications for foreshore, wharf and water lots as they affect the interests of navigation; preparation and publication of notices to mariners and hydrographic notes, &c.

There are special staffs appointed for the tidal observation work and for the hydrographic survey work; the remainder of the work of the branch is attended to by the general staff of the office.

STAFF.

I have again much pleasure in testifying to the good work done by my staff throughout the past year.

The vigour with which the government is improving and increasing aids to navigation has very materially increased the work of designing in the department, and these increased demands on the staff have not only worked all the members hard, but have necessitated the employment of two additional architects.

Mr. F. J. Alexander, a practising architect in Ottawa, has been temporarily employed as architect and draughtsman since March 29, 1902, with a salary at the rate of $1,200 per annum.

Mr. E. C. Larose, a practising architect in Ottawa, has been temporarily employed as architect and draughtsman since April 24, 1902, with a salary of $1,200 per annum.

OFFICE WORK.

A large proportion of the work done by the general staff of the branch consists in the construction and maintenance of light buildings, fog-alarms, buoys, beacons and other aids to navigation. Full details of the work done in this connection last year are contained in a separate report prepared by me, in my capacity of general superintendent of lighthouses, which is attached hereto. (Inclosure A.)

Plans and specifications for all important new buildings and repairs, new vessels, buoys, &c., are made or approved in this office.

The following table indicates the work done in the draughting office during the twelve months ending November 30, 1902:—

Description of Work.	Plans Designed.	Plans Received.	Copies Made.
Lighthouse towers and dwellings	32	8	109
Fog-alarm buildings	1	1	11
Details	29	11	57
Wharfs, piers, &c.	3	4	18
Outbuildings	5	1	31
Buoys and apparatus	2	8	50
Machinery	5	42	38
Lanterns and illuminating apparatus	1	41	10
Steamers	1		1
Land surveys	3	36	56
Charts		1	2
Charts under construction	1		
Miscellaneous	20	87	204
Plans relating to foreshore		57	7
	103	297	594

Total plans for twelve months, from December 1, 1901, to November 30, 1902	*994
Charts received and recorded	177
" " entered in chart book	58
Photographs received and recorded	289
Specifications written	46
Notices to mariners issued (comprising 406 subjects)	124

The work of the branch is increasing so steadily and so rapidly that it is evident the day is not far distant when the chief engineer will be compelled to restrict his work to a general supervision of the technical work of the department. To meet this contingency an effort is being made to allot to different members of the staff particular specialties.

Mr. B. H. Fraser has been entrusted during the past year in addition to his ordinary duties as assistant in charge, with the designing and installation of machinery, and has spent a great deal of time on the perfecting of fog alarm machinery.

An officer should be selected to superintend the hydrographic work.

The detail required in issuing notices to mariners has continued very heavy, and demands so much time that it became necessary to allot an assistant for the special work of preparing them for publication. This work has been placed in the hands of Mr. J. M. O'Hanly.

During the past year, 124 notices, comprising 406 subjects, have been published, and the form of the notices has been changed, rendering them both more compact and more explicit. They are also numbered separately as Atlantic, Inland and Pacific notices to facilitate filing.

We are not attempting to issue notices for the whole world, as is done by some governments, but try to promptly issue all notices relating to Canadian waters, and occasionally include items relating to foreign ports that might be of interest to ships

leaving Canadian ports. During the past twelve months, foreign notices were issued, covering twelve items relating to Newfoundland, two items relating to the Atlantic, seventy-four to the inland, and six to the Pacific waters of the United States, as well as sixteen notices referring to transatlantic, and eight to transpacific subjects.

To facilitate prompt distribution, and to insure the notices reaching all mariners interested, the distribution list has been revised and the addresses printed. The department desires to insure every mariner using Canadian ports seeing all notices to mariners issued by the Canadian Government.

Arrangements have been completed for issuing an index to the year's notices to mariners, so that the offices which file them can bind the whole, for future reference, into neat book form.

The usual annual edition of the List of Lights and Fog Signals on our coasts corrected to April 1, 1902, was issued on June 3, 1902. It is hoped that the next edition, corrected up to January 1, 1903, may be ready soon after New Year.

ACETYLENE LIGHTING.

During the past year experiments have been in progress with a view to ascertaining the practicability of adopting acetylene as a lighthouse illuminant. Five generators manufactured by the Savoie-Guay Company, under the patent of Doctor Chevrier, have been purchased and installed at the lighthouses at Oka, L'Orignal, Aylmer island and Baskin wharf range lights, on the Ottawa river. This machine is designed to withstand frost, a glycerine mixture being used as a gas seal instead of water. One of these machines has already given out, and it seems evident that the cost of installation and maintenance will both militate against their adoption for small lights.

A Sunlight acetylene plant was installed by the Sunlight Gas Company at Father Point light station, and acetylene gas lights from one foot burners are now used in the nine reflectors of the revolving apparatus. The result has been a very great increase in the power of the light, and reports have been received that the light, which has a horizon of only 14 miles, has repeatedly been seen as far as 28 miles. Mariners have spoken in the highest terms of the great increase in the power of this light. The cost of the installation here was greater than it should have been. The consumption of carbide appears to be larger than necessary, and it is a question whether the machinery and gas fixtures will prove permanent in character. These are details of construction that can undoubtedly be overcome, but the existence of these doubtful points indicates that a perfect acetylene generating machine for lighthouse work has not yet been secured.

Mr. J. F. Fraser, acting on instructions from the Minister, installed on the buoy tender *Scout* a temporary acetylene gas generating plant. From the middle of spring until the close of navigation four of the six gas buoys in Lake St. Louis were charged with a mixture of 75 per cent of oil gas and 25 per cent of acetylene, while two burned pure acetylene. A very marked increase in the power of the lights was noted and commented upon by mariners. Experiments in buoy lighting will be continued during the winter.

I am not quite satisfied that the problem of adapting acetylene gas to lighthouses has yet been solved. It appears to me that the installation of independent plants at

each station is expensive and wasteful, and I think, probably that a solution of the problem will be found rather in the direction of supplying compressed acetylene to the several lighthouses than in producing the gas at the stations themselves.

FOG ALARM MACHINERY.

The type of fog-horn with which the Canadian stations are at present largely equipped is practically out of date, but the more modern alarms are, as a rule, very complicated, and we have been looking for a type which will be simpler than anything now in use and which will cost less for installation and maintenance, relatively to its sound-producing capacity.

The department has lately carried out a series of tests which tend to show that a new invention, called the diaphone, will meet the above conditions. At first little more than a toy, it has been developed by the manufacturer, under the direction of the department, to a point where it will compete successfully with any alarm now in existence. It is hoped that this instrument will be in practical operation in a very short time at the new station at Father point, where it will be tested against the Scotch type of siren, which gave the most satisfactory results at the exhaustive experiments recently carried out by the English Trinity House.

The aim of the department has been to go carefully forward, avoiding the danger of making a large number of costly installations which might have to be superseded before long.

The most important installation of the four made during the past year was that at Louisbourg, where a first order Scotch siren was put in operation in February, 1902. The siren and appurtenances were purchased in Scotland, but the engines, tanks, compressors and other auxiliaries necessary for the supply and storage of the compressed air used in the operation of the machine, were made in Canada. The total cost of the installation was $12,036.13.

At Fame Point an alarm of the Hamilton-Foster type was put in operation in October, 1902. In this system the alarm is supplied with a number of horns pointing in certain definite directions, by which means the inventors claim that mariners can always determine their bearing from the alarm. This alarm has not been in operation a sufficiently long time to properly demonstrate its capabilities. The total cost was $10,324.57.

At Cape Croker, on Georgian Bay, an electric alarm was established in July, 1902. This is the invention of a Canadian, and a similar alarm has been in use for some time in Victoria Harbour, B.C., where the city current is used. At Cape Croker the plant has failed to give satisfaction, the sound produced being comparatively feeble. It is expected that this will be improved by changing some of the electric machinery, but it is probable that the usefulness of this type will be largely confined to the purpose of marking pier heads and slips at points where an electric current can be easily and cheaply obtained. The cost of the machinery here was $3,358.78.

The fourth installation was at the middle ground in Pelee passage where a siren operated by steam was installed on October 1, 1902.

Several fog-alarm buildings are in course of construction; all being designed with a view to their adaptation to new forms of apparatus should it appear desirable to make a change. Our experience as well as that of other countries tends to show that compressed air is a more successful medium than steam for operating alarms of the siren type. For this reason, and also because it is difficult to obtain fresh water at many of our fog alarm stations, oil engines are being installed in our modern fog alarms, in the place of steam boilers.

PERSONAL INSPECTIONS.

During the past year a great deal of my time was again occupied in inspection work.

The construction of a second lighthouse on a pier in the Traverse of St. Roch necessitated six trips to Quebec and the Traverse to inspect the progress of the work, to survey the site and to superintend the sinking of the pier.

The taking over of aids to navigation from the Department of Railways and Canals involved three inspections on the River St. Lawrence, between Montreal and Kingston, receiving the equipment and organizing the service.

Several visits were paid to the St. Lawrence ship channel, in connection with the extensive improvements being made in it this year.

In June, 1902, I accompanied the Honourable Mr. Sutherland on an inspection of aids to navigation between Montreal and Chicoutimi, and in November accompanied the Honourable Mr. Préfontaine on a similar inspection between Montreal and Quebec.

In June, a special inspection was made of Lake Superior and the sites of several new aids to navigation were located.

In July an inspection of parts of the maritime provinces was made. On the steamer *Brant* I visited harbours on the east coast of New Brunswick, and found the buoyage, which is under contract in the several harbours, far from efficient.

In August and September, British Columbia was visited.

Most of our existing aids to navigation on the Pacific coast were inspected: sites were chosen for new aids to navigation; three hydrographic surveys were made with the assistance of Capt. Walbran, and other hydrographic work done. Details of this work will be found in other parts of this report.

In consequence of the great increase in building operations, during the past season, it was impossible for me to do all the outside inspection work required, and inspections were consequently made at several times by the following members of my office staff: Messrs. B. H. Fraser, U. P. Boucher, J. F. Fraser, E. C. Larose, H. E. Fosbery, W. H. Noble and A. Theriault.

REMOVAL OF OBSTRUCTIONS.

Very little work has been done during the past twelve months under this vote, and I think the amendment in the Act which prevents owners from shifting their responsibility after a wreck has occurred may be thanked for the small number of derelicts now allowed to disfigure our shores.

During the fiscal year ending June 30, 1902, the total expenditure on this service was $1,325.25.

The following statement shows work done in this connection during the past twelve months so far as it has come under the official notice of this department:—

Locality.	Obstruction.	Work done, &c.	Cost to Govern't.
			$ cts.
St. Andrews, N.B	Old wreck in channel	Removed by John Pendlebury	9 00
Whitehead, N.S	Sch. *Geo. P. Trigg*, sunk	Buoyed	6 50
Prescott, Ont	Str. *Rothesay*, sunk	Blown up by R.M.C. officers	368 96
Port Burwell, Ont	Sloop *Lulu Beatrice*, beached	Blown up by D.G.S. *Petrel*	None.
Lake Erie, Ont	Str. *W. H. Stevens*, burned and sunk	Examined and buoyed	None.
"	Str. *City of Venice*, sunk	Spar removed by D.G.S. *Petrel*	25 75
"	Sch. *H. A. Barr*, sunk	Mast and floating wreck removed by D.G.S. *Petrel*	None.
Port Stanley, Ont	Log in harbour	Removed by A. C. Brown	9 00
Middle Island, Ont	Str. *George Dunbar*, sunk	Marked by buoy	None.
Mouth of Detroit River, Ont	Sch. *Mont Blanc*, sunk	Buoyed by D.G.S. *Petrel*	None.
Sandwich, Ont	Dredge beached	Removed by H. W. Baker	None.

BUOYAGE.

The buoy service in the Dominion has been greatly improved within the last year by increasing the number of buoys and by replacing old buoys by larger ones of better construction.

In the River St. Lawrence between Montreal and Prescott very important changes were made, as detailed in my report as general superintendent of lighthouses. The buoys previously under the divided control of this department and that of Railways and Canals, as well as the steam barge buoy tender *Scout*, were all transferred to this department, and an assistant engineer put in charge of the system.

The steamer has been constantly employed in this district, improving the buoys and placing new ones to mark dangers and channels not previously buoyed. Since she was taken over by this department, the *Scout* has had a chart room and additional cabin accommodation added to her, and has been equipped for tending gas buoys by installing on board a gas compressor, and supplying three gas holders of 260 cubic feet capacity each.

It is the intention to extend the operations of the *Scout* in connection with the buoy service at least as far west as Kingston. At present there are contracts in existence which will not terminate for a year or so, but the buoys in the districts for which contracts have been made will be included with the buoys attended to by the *Scout*, as the contracts terminate. It will be necessary to establish a buoy depot, store and workshop in connection with our extended work in this section, and Morrisburg has been chosen as the headquarters for this service.

There are now about 360 districts buoyed in the Dominion, including harbours, bays, rivers and lakes, with over 3,200 buoys.

The Montreal ship channel buoy service was started about April 3, 1902, but an accident to the machinery of the *Shamrock* delayed the work for a few days. The department secured the assistance of a tug from the Public Works Department and the work was proceeded with. On April 16, a large number of the buoys had been placed and the channel between Montreal and Quebec was practically open. Some changes were made in the buoys in Montreal harbour and the buoy service continued until all the buoys were placed. Between Quebec and Platon extensive changes were made in the buoys by substituting steel buoys for wooden ones, and by increasing the size of existing can buoys.

The *Shamrock* was repaired and again put in commission on May 23.

Some important steel buoys had been left in position in the fall of 1901 to accommodate ocean-going steamers, and were frozen in before it was possible to lift them. These buoys were sunk during the winter in order to save them from being carried away by ice in the spring. They were grappled for and recovered in the spring. The expenditure in connection with this extra service was considerable, and it is not considered in the interest of navigation to continue the practice of allowing expensive steel buoys to remain in position until frozen in, as it seriously interferes with the supply of important and valuable buoys at the opening of navigation.

All the large buoys on the more exposed portions of the coast of the maritime provinces and British Columbia, consisting of automatic whistling and bell buoys and a large number of conical and can buoys are maintained by this department by utilizing government steamers as buoy tenders.

In the province of Quebec about 170 wooden and iron buoys and 12 gas buoys are maintained by the government steamers. The new steamer *Druid* was specially built for a buoy tender and is a powerful steamer, with the latest equipment and apparatus for handling large buoys.

In Nova Scotia there are 23 automatic whistling buoys, 18 bell buoys and 128 steel conical and can buoys. These are considered coast buoys and are placed and maintained in position by Dominion steamers.

In New Brunswick there are 16 whistling and bell buoys, 15 steel can and conical buoys and a bell boat. In that province 18 new steel buoys were supplied last year at a heavy cost. Some of these buoys were sent to districts under contract to replace large wooden buoys. Some of the signal buoys in the Yarmouth district are maintained by the New Brunswick agency and are included in the New Brunswick buoys.

In Prince Edward Island there are 3 large signal buoys and during the past season 2 steel conical buoys were added to the number of coast buoys, making 5 in all.

In British Columbia about 70 buoys are tended by the Department's steamer *Quadra* and 20 in the Fraser river by the snag boat *Sampson*.

The number of bell buoys in Ontario is 4, but the gas buoys have been increased by the change made between Montreal and Prescott on the St. Lawrence river. There were formerly 5 gas buoys maintained in Ontario and 26 gas buoys have been added to the list making 31 in all. The bell buoy marking Lone Rock was sunk in the fall of 1901 and has not since been recovered or replaced.

During the season of 1902, the buoy service on the Nova Scotia coast was attended to by the steamers *Lansdowne*, *Stanley* and *Aberdeen*. Each steamer performed the service at intervals. A new steamer has been built for the Nova Scotia agency and will be employed in Nova Scotia, probably from the beginning of 1903. This steamer is specially equipped for raising and placing large automatic buoys.

In some districts the harbour masters attend to the buoyage, in others the buoys are under the control of local harbour boards, but in the majority of cases a very large number of buoys are maintained under the contract system, the contractors undertaking to maintain the buoys under a strict specification for a bulk sum per annum. The contracts usually cover a period of three years. There are now about 200 contracts in force, some of which will terminate next spring.

It is the purpose of the department, if possible, to employ some of the Dominion steamers in the buoy service more largely and this will diminish the number of contracts. If it is found impossible with the present number of steamers to maintain the buoy service, I should advocate improving the inspection and superintendence by appointing some or all of the captains of government ships, including fishery protection vessels, superintendents of the buoy service in addition to their other duties.

The office work in connection with the maintenance of the buoys, preparation of contracts, examination of accounts, inviting tenders for contracts and the work in connection with the construction of new buoys, is attended to by Mr. W. W. Stumbles. This involves an immense amount of detail.

Appended inclosure B is a list of the buoys in the Dominion under departmental control.

GEOGRAPHIC NAMES.

The third annual report of the Geographic Board of Canada, with a list of all decisions reached up to the date of its issue, was published in July, 1902, as a supplement to the annual report of this department; and the fourth annual report, containing only decisions reached after the issue of the third, was similarly issued in November, 1902.

A few decisions, affecting name son the Admiralty charts, were announced in notices to Mariners. These were not important in themselves, but the existence of the board as an authority for fixing authoritative orthography and nomenclature is greatly appreciated.

HYDROGRAPHIC WORK.

The hydrographic survey of the Canadian shores of the great lakes has made good progress during the past season. Mr. Stewart, on the steamer *Bayfield*, began the survey of Lake Superior, taking up the work at Coppermine point, the northern limit of the survey of Whitefish bay, by the United States Corps of Engineers, and completed a thorough examination of the water off the shore as far north as Cape Gargantua. One very dangerous and hitherto unknown shoal was found lying $1\frac{3}{4}$ miles west of Leach island, with only fourteen feet water over it. The shoal off Corbay point was examined and described; also a large uncharted bank lying south of Montreal island, and Mica shoal.

Observations for the variation of the magnetic needle were made in October, at Gargantua harbour and Batchawana bay.

Mr. Stewart had no assistant during the season, and was seriously handicapped by being obliged to take all fixes alone.

The boiler of the steamer *Bayfield* was partially repaired in the spring; further repairs to the hull and machinery are necessary before she can be used for any service.

In December, 1902, the steam tug *Lord Stanley* was purchased from Mr. Geo. T. Davie, of Lévis, to replace the *Bayfield*, which is a very old boat to venture on the exposed waters of Lake Superior. On her way to the lakes the *Lord Stanley* met with an accident in Toronto, and the repairs involved prevented her use this season on Lake Superior. She was therefore lent to the Department of Public Works for ship channel work, and during the coming winter will be fitted at the Sorel yard for hydrographic surveying, and will be used by Mr. Stewart next year.

Mr. F. Anderson, assisted by Mr. R. E. Tyrwhitt, continued the survey of Lake Winnipeg, begun by Mr. Stewart in 1901. He made good progress in the examination of the east shore of the lake, developed good channels into Berens and Big Black rivers, located and examined George, Little George and Sandy islands. The tug *Frank Burton* was chartered for the purpose between May 20 and October 16.

Last winter two fair sheets of the survey of Lake Huron, between Southampton and Goderich, were prepared and sent to the hydrographer of the Admiralty for engraving.

In June last, the Admiralty issued a new coast chart, on a scale of 8 inches to the mile, covering the survey between Cove and Chantry islands, Lake Huron.

Advantage was taken of the appointment of Mr. J. F. Fraser, as engineer in charge of aids to navigation between Montreal and Kingston to have some hydrographic work attempted in his division, and during the summer a chart room and additional cabin accommodation were added to the steam barge *Scout* to make her more convenient for hydrographic work.

The absence of any suitable buoy plans necessitates the preparation of a set of plans of the whole river between Montreal and Kingston, in order that the buoys may be placed and checked by sextant angles.

On Lake St. Louis several detached hydrographic surveys had already been made by the Department of Railways and Canals, and that department has a vote for the complete survey of the lake. In the meantime the triangulation of that lake has been completed by Mr. Fraser. This will enable the detached surveys, above alluded to, already made, to be connected and utilized in providing the required buoy plans of this lake. As opportunity offers, it is proposed to extend the triangulation westward, and, between Cornwall and Ogdensburg, to tie in with the United States triangulation of 1870-3.

Special attention has been paid during the past year to the publication, in Notices to Mariners, of all information that reached my office respecting hydrography, and very full sailing directions have been included in the description of aids to navigation. The following hydrographic notes, not elsewhere referred to in this report, were issued :—

AFFECTING THE ATLANTIC COAST AND ST. LAWRENCE.

St. John.—Warning that Negro point breakwater has been extended beyond the lighthouse; change of time for dropping time ball, and announcement of adoption of 60th meridian time throughout the maritime provinces.

Brazil rock.—Position of bell buoy on charts corrected.

Halifax.—Position of inner automatic buoy corrected; vessels asked to report at Camperdown signal station; boats warned of danger zone at McNab island rifle range.

Jeddore.—Position of range lights fixed, and sailing directions.

Canso.—Cape Breaker bell buoy not shown on some charts.

Gut of Canso.—Railway termini described.

Bad Neighbour shoal.—Depth corrected.

Grand Narrows.—Warning respecting railway bridge.

Cape George.—Position of lighthouse corrected.

St. Paul island.—Position of signal station described; two notices.

Strait of Belle-isle.—Establishment of telegraph station at Amour point light-station, and installation of Marconi wireless telegraph stations at Belle isle lighthouse and Chateau.

Mingan.—Position of rock in channel fixed by Commander W. Wakeham.

Richibucto.—Description of approach to harbour, and sailing directions, from survey by the undersigned.

Shippigan.—Description of entrance from gulf, buoyage and warning to mariners.

Caraquet.—Hydrographic notes from survey by the undersigned.

Bathurst.—Depths, from inspection by the undersigned.

Traverse of St. Roch.—Sailing directions by the undersigned.

Maranda rocks.—Extension, found by Capt. Koenig.

St. Antoine.—Sailing directions for new range lights, by the undersigned.

Lake St. Peter.—Description of hydraulic dredge *J. Israel Tarte*, and her work, with warning, by F. W. Cowie, Esq., C.E., P.W.D.

Contrecœur to Cap St. Michel.—Description of improved ship channel, from inspection by the undersigned.

INLAND NAVIGATION FROM MONTREAL TO FORT WILLIAM

Soulanges canal, upper entrance.—Description of lights and buoys, with sailing directions, from a survey by the undersigned.

North channel, Galops.—Described from inspection by the undersigned.

Montreal to Prescott.—A full list of buoys, including those taken over on the opening of navigation, from the Department of Railways and Canals, was published from a report prepared by Mr. J. F. Fraser, engineer in charge.

Thousand islands.—A resurvey of the Canadian channel has been made by Mr. S. J. Chapleau, C.E., for the Department of Public Works. During the course of his work he located several uncharted shoals and rocks. Eleven of these dangers have been located and described.

Wolfe island.—Shoal at foot being dredged and buoyed under supervision of Mr. Chapleau.

Port Colborne.—Changes in the harbour, in connection with the improvements in progress, described from inspection by the undersigned.

Long point.—Lifeboat station removed from Port Rowan to the coast of Lake Erie, two and a half miles west of the gap lighthouse.

Limekiln crossing.—Depth of water in dredged cut.

Sarnia.—Description of the shoal opposite the town.

Goderich.—Hydrographic notes and amended sailing directions, based on an inspection by Mr. W. J. Stewart.

Collingwood.—Description of improvements, buoyage, and other hydrographic notes, from a report by the harbour master.

Depot harbour.—Establishment of a storm signal station, from a report by the director of the Meteorological Service, and description of breakwater and wharf extension, from report by Mr. J. W. Fraser, P.W.D., engineer in charge.

Coppermine point.—Description of fishing station, from inspection by the undersigned.

Gargantua.—Hydrographic notes, from survey in 1895 by U.S. Lake Survey, and from personal inspection by the undersigned.

Thunder bay.—Shoal reported by U.S. Hydrographic office; existence later disproved.

PACIFIC COAST.

The following hydrographic notes result from surveys and inspections made by Captain J. T. Walbran, Master D.G.S. *Quadra*, who takes great interest in cartography and has contributed much information respecting British Columbia waters:—Nootka sound—Uncharted rock in Guaquina arm. Clayoquot sound—Uncharted rock in west end of Browning passage; uncharted rocks at the eastern end of Hecate passage; position of wharf on Stubbs island. Barkley sound—Uncharted rock off Table island, and hydrographic notes. Port San Juan—Wharf in Snuggery cove, &c. Nitinat—Position of Clo-oose village, and notes. Chemainus—Uncharted rock. Tricomali channel—Location and description of Victoria rock. Portier pass—Notes on rocks. Burnaby shoal—Clearing marks described. Bute inlet—Uncharted rock—Malaspina strait—Position of Sliammon village. Scott islands—Hydrographic notes. Lama passage.—Rock non-existtent. Bella-Bella.—New Indian village located. Seaforth channel.—Joassa passage described, &c., Wellington rock located and marked. Metlahcatlah harbour.—Hydrographic notes. Carter Bay.—Shore line corrected.

During my visit to British Columbia this year I had the opportunity of doing some hydrographic work. The following details were embodied in notices to mariners: Barkley sound.—The terminus of the trans-pacific cable described; buildings and wharf located on charts. Clayoquot sound.—Notes respecting Lennard island and Templar channel: position of rock east of Clayoquot village; rocks located west of Browning passage; uncharted shoal in Browning passage located and fixed.

The following details respecting the Pacific coast are from various sources:

Carmanah.—Position of lighthouse fixed.

Esquimalt.—Description of Bedford signal tower on Grant Knoll, by Capt. E. Fleet, R.N., H.M.S. *Phaeton.*

Brotchy ledge.—Description of beacon corrected by agent.

Sidney channel.—Rocks located by Commander C. H. Simpson, R.N.

New Westminster.—Bridge under construction across Fraser river reported by agent.

English bay.—Telegraph cable located by agent.

Point Atkinson.—Periodicity of fog signal corrected.

Vancouver harbour.—Sailing marks described by Capt. C. Keppel, R.N. Intervals between strokes of Brockton point fog bell corrected.

Queen Charlotte sound.—As results of the resurvey of this locality now being prosecuted by Commander C. H. Simpson, R.N., rocks have been found and fixed off Foster island; two in New channel; and three in Sealed passage and North channel.

Dryad point.—Description of light-station amended.

SURVEY OF TIDES AND CURRENTS.

The report of Dr. W. B. Dawson, on the progress of this survey, shows a continuous advance in the tidal information obtained and published, both for the eastern coast of Canada and for the Pacific. It is attached to this report as Inclosure C, and is also issued in pamphlet form as a supplement to the annual report.

An important step may be noted, as an aid to navigation on the St. Lawrence route. The tidal observations throughout the St. Lawrence in 1900 make it evident that both tide and current in the open estuary below the Traverse could be better referred to Father point than to Quebec. The tidal record from Father Point is therefore being submitted to an analysis which will enable tide tables to be calculated directly for that locality. Until now, these tide tables have been deduced from the Quebec tables by an elaborate method which was devised to save the expense of analysis at an additional station, but it has become apparent that a direct calculation will give more accurate results, and will enable the turn of the strong tidal currents of the St. Lawrence to be more correctly known; as their relation to the time of the tide itself is already ascertained.

In this report, all the information yet obtained is summarized, regarding the tide and current in Northumberland strait; and the laws which govern the movement of the current are given. From observations taken at Pictou island, the time at which the current turns, is found to vary with relation to the moon's declination; which has proved to be the ruling element in this region. This is very confusing to the mariner, as the turn of the current is thus out of accord with the moon's phases, and has no fixed relation to the spring and neap tides.

The ordinary navigator takes refuge in the conclusion that the currents are chiefly influenced by the wind. But their movement is in reality reduceable to astronomical laws, although these are complicated in their character.

Further observations of the current in this strait were obtained at Cape Traverse, from the movement of the ice, and from fishing boats which anchor in mid-strait. The relation between the turn of the current and the time of the tide is found to be most consistent when the principal tidal station at St. Paul island is taken for reference, rather than Pictou in the strait itself.

On the Pacific coast, good progress has been made, both in the improvement of the tide tables through the analysis of further tidal records from the principal stations, and also in the establishment of additional tidal stations to extend the information available. A summary of the results obtained to date, is given in this report. In the tide tables which were first published for the year 1901, information is now given for Victoria and Esquimalt; Vancouver, New Westminster, Nanaimo and Baynes sound; as well as for the current in the First narrows, Burrard inlet. The stations for which the tide tables are primarily calculated, are Victoria, and Sand Heads in the Strait of Georgia; and the results deduced from these are much better than can be obtained from comparisons with Port Townsend, as given in the tide tables of the United States Coast Survey. The reason for this is the difference in the character or type of the tide.

Further information is given regarding tide levels and datum planes in our harbours, which is of the first importance for harbour improvements, drainage works, &c. This is one of the collateral ways in which this survey is of service to other departments.

Five summer tidal stations were erected this season with the object of obtaining tidal data as a basis for the investigation of the currents at the entrance to the Bay of Fundy, and in the bays on the south coast of Newfoundland. Two more tide gauges were also placed on the open Pacific coast, at Barkley sound and at Port Simpson, arrangements for which were completed by the undersigned when in British Columbia.

The tide tables have again been issued in three sets as explained in the last report, and the demand for them increases steadily. Considerable work has also been done in improving their accuracy, by the analysis of further tidal record. This will be of benefit to the tide tables in all future years, and it will also be of advantage to the regions which depend on the principal harbours as ports of reference.

Two notices to mariners were issued relating to currents, one warning them against the strong downward current off the Gaspé coast, which is undoubtedly responsible for some casualties; the other giving results of observations by H.M.S. *Egeria* in the approach to Juan de Fuca strait.

The total expenditure on this survey during the fiscal year from June 30, 1901, to June 30, 1902, was $8,951.08, in which a supplementary estimate of $1,500 is included, which was expended upon material for heavy repairs required at the permanent tidal stations.

The whole respectfully submitted,

WM. P. ANDERSON,

December 9, 1902. *Chief Engineer.*

[INCLOSURE A.]

DETAILED REPORT OF THE GENERAL SUPERINTENDENT OF LIGHT-HOUSES ON CONSTRUCTION AND MAINTENANCE OF LIGHT-HOUSES AND OTHER AIDS TO NAVIGATION UP TO NOVEMBER 30, 1902.

To the Deputy Minister
of Marine and Fisheries.

SIR,—I have the honour to submit the usual annual report of work done in the construction and maintenance of aids to navigation for the year ended November 30, 1902.

Lighthouses, fog-alarms, buoys, beacons, and other aids to navigation throughout the Dominion of Canada are administered by the Department of Marine and Fisheries. The construction of new buildings and the more important repairs are under my direct supervision, the maintenance of existing stations is controlled by the several agents of the department, and the periodical inspection of the stations is made by inspectors resident in the different provinces, the agents in Prince Edward Island and British Columbia fulfilling the double duties. Much of the information contained herein is compiled from the annual reports of these officers.

The numbers and distribution of the several aids to navigation throughout the Dominion are shown in the following table:

District.	Light-stations.	Lights.	Keepers.	Fog-whistles and sirens.	Fog-horns.	Fog-bells.	Fog-guns or bombs	Whistling-buoys.	Bell-buoys.	Gas-buoys.
	*									
Province of Ontario	206	270	188	2	12	4			6	29
Light ships	3	3								
Province of Quebec	129	183	156	4	8	1	8	1		12
Light ships	7	7		3						(4 with bells).
Province of Nova Scotia	190	204	203	11	6	2	1	22	18	
Fog alarms	3									
Light ships	1	1								
Province of New Brunswick	100	128	95	4	8	1	1	5	6	
Fog alarms	3									
Light ships	2	2				1				
Province of Prince Edward Island	39	66	45		1			3	1	
" British Columbia	30	35	32	1	6	6			1	
	713	899	719	25	41	15	10	31	32	41

* Lightships and fog alarms where there are no lights are in this column included in the total number of light stations in the Dominion.

Supplies for the lighthouse services are purchased in bulk, under contract, except in the case of articles of which only small quantities are required, in which case they are purchased locally in the open market. These supplies are distributed from the stores at each district headquarters, usually under the personal supervision of the inspectors of lights, who inspect the stations when delivering the supplies. They also arrange for all small ordinary repairs and periodical painting of the buildings. These routine duties are not alluded to in describing the repairs executed at the several stations.

Work of construction and extensive repairs are usually executed under contract; minor repairs are done under the lightkeeper's supervision, or by foremen employed in the several districts.

It has been usual to enumerate in this report most of the repairs undertaken at light stations, but details of small repairs are herein omitted. Ordinary small repairs, such as are required for the proper upkeep of the stations, have been made, usually under the supervision of the keepers, on authority from the several provincial agents.

Estimates for any unusual repairs, or items involving considerable expense, are submitted to the undersigned, and are authorized by the department from Ottawa before the work is undertaken. Full particulars respecting the cost of all repairs is contained in the Auditor General's report.

Lightkeepers and fog alarm engineers are expected to make any small repairs that can be reasonably expected of unskilled workmen, without charge, and are also called upon to do all painting required at the stations, being allowed some assistance when the buildings are so high as to require hanging scaffolds.

ONTARIO LIGHTHOUSE DIVISION.

This division includes the lighthouses and other aids to navigation in that part of the province of Quebec lying west of Montreal, all those in the province of Ontario, and those on lake Winnipeg, in the province of Manitoba. It is under the direct management of the headquarters staff at Ottawa.

The number of lighthouses, lighted beacons and lightships maintained by the Dominion in the Ontario division, as above described, is 273, located at 259 different stations.

The number of lightkeepers in this division paid directly by the government is 188; but in several cases assistants are employed by keepers and paid by them out of the allowance made by the government for that purpose.

There are in Ontario two fog whistles, twelve steam fog-horns and four fog-bells, operated by machinery, all located at light-stations, as well as six bell-buoys and twenty-nine gas-buoys.

Besides the lights maintained by this department as above described there are in Ontario the following aids to navigation; three lights on swing bridges; a system of lights on the Murray canal, maintained by the Department of Railways and Canals; five pairs of range lights on the Detroit and St. Clair rivers and one lightship with steam fog-alarm in Lake Erie, maintained by the American vessel owners principally interested; thirteen wharf lights maintained by the municipalities or corporations to which the wharfs belong; two range lights maintained by local interests at Pine Tree harbour, and one on Coppermine point.

Seven of these last described stations are aided by this department to the extent of being furnished with the necessary oil for their maintenance.

A steamer is chartered yearly for the supply of the lightstations on the River St. Lawrence and the great lakes, between Montreal and the head of Lake Superior, and the lighthouses are supplied and the stations inspected on this trip, which occupies about seven weeks, by Mr. Patrick Harty, Superintendent of Lights. Mr. Harty also inspected the lights on the Ottawa river, but a few small lights on isolated waters, including Lake Timiskaming, Lake Nipissing, Lake Simcoe and the Bay of Quinte, were not inspected. Mr. John Nash, local agent of this department at Rat Portage, inspects the lights in Lake of the Woods from time to time, and generally attends to the interests of this department throughout Rainy river district.

NEW AIDS TO NAVIGATION.

Soulanges canal, upper entrance.—The temporary range light structures previously used have been replaced by permanent iron lighthouses, circular in plan, surmounted by circular metal lanterns.

The buildings stand on gray limestone foundations, and are painted white with the lantern roofs red.

The front lighthouse stands on the south extremity of the west pier, and is 35 feet high from the ground level to the vane on the lantern. From it a fixed red light, elevated 31 feet above the water is shown, which should be visible 5 miles in, and over a small arc on each side of, the line of range.

The illuminant is compressed gas, but the light is watched.

The back tower stands 1,585 feet S. 50° W. from the front one. It shows a similar light, elevated 46 feet above the level of the lake, which should be visible 5 miles in the line of range. The alignment indicates the west edge of the dredged approach to the canal and leads to the gas buoy at the southwest extremity of the dredging.

Lake St. Francis middle ground—A light established by the Department of Railways and Canals and put in operation on the opening of navigation in 1901, on a pier built on the middle ground between St. Francis and Thompson islands, Lake St. Francis, to mark a narrow part of the new 14-foot channel through the lake, was taken over by this department this year, with the other aids to navigation in this stretch.

The light is fixed red, shown from a lantern hoisted inside a tubular iron column capped by a pressed glass lens. It is elevated 24 feet above the level of the river, and should be visible 4 miles from all points of approach.

The column is painted black and is 20½ feet high, from the pier on which it stands to the top of the lens. Surrounding the base of the column is an iron shed which, including its roof, is painted white.

The pier stands on the northwest edge of that portion of the middle ground which has not been removed by dredging. The lighthouse is distant 3,600 feet N. 70° E from Hamilton island light.

St. Regis dyke—In connection with the establishment of a 14-foot channel in the stretch of the River St. Lawrence between the Soulanges and Cornwall canals, the Department of Railways and Canals opened a new channel south of Colquhoun island and the Crabs, instead of improving the old channel north of those islands. This necessitated the dredging of a channel 300 feet wide through the bar extending from the Crabs to the foot of Cornwall island, the material from which now forms a dyke on the south side of the cut.

The east end of this dyke was, on the opening of navigation in 1901, marked by a fixed red lens lantern light similar in every respect to that on St. Francis middle ground, last described, except that this pier is 1 foot higher above the water.

The light stands in the middle of a cribwork pier 30 feet square built to protect the east end of the dyke. It is distant 2⅕ miles S. 72° W. from Stonehouse point light. From the light the dyke runs N. 71¼° W. It is 542 feet long.

This light did not prove satisfactory, as the lamp smoked the lens, and a spare gas buoy burning acetylene gas was therefore placed on the dyke near the light column, and substituted for it in September, 1902. On November 7 the buoy lantern was raised 10 feet, or 26½ feet above the water, by increasing the height of the superstructure, and was moved 4 feet south to the position previously occupied by the light column first used.

A fixed white light shown from a gas buoy placed on the north corner of the crib at the west extremity of the dyke was at the same time established. This light is distant 500 feet N. 67° W. from the light on the east end of the dyke, above described. It is elevated 16½ feet above the water, and should be visible 8 miles from all points of approach. It is an unwatched Pintsch gas light.

The two lights in one form a range to lead up the river to the turn abreast of Cornwall island point.

The establishment of this range rendered unnecessary the maintenance of black gas buoy No. 95 F, about 350 feet above the dyke, as the lights in one lead north of the point which it marks. It was therefore removed at the same time.

The range of lights leads well north of the shoal off Cornwall island point, marked by black spar buoy No. 97 F and black gas buoy No. 99 F. This shoal was marked, when the range lights were established, by discontinuing spar buoy No. 97 F, and by moving gas buoy No. 99 F one cable N. 73° E. to the turning point.

Galops canal head.—A light, established and operated by the Department of Railways and Canals was put in operation on June 28, 1902, on the western extremity of the pier on the south side of the upper entrance to the Galops canal.

The light is fixed red, shown from a lantern hoisted inside a tubular iron column, capped by a pressed glass lens. It is elevated 24 feet above the summer level of the river, and should be visible 4 miles from all points of approach.

The column is 20½ feet high, from the pier on which it stands to the top of the lens. Surrounding the base of the column is an iron shed. The whole structure is painted white.

Galops north channel.—A light in every respect similar to that last described, except that it is elevated only 22 feet above the summer level of the river, was, on the 16th May, 1902, established and is maintained by the Department of Railways and Canals, on the angle of the dyke on the northwest side of the lower entrance to the north channel, a dredged approach to the upper entrance of the Galops canal.

Port Colborne—The Department of Public Works is building a large breakwater to form an artificial harbour, and the contractors maintain a temporary light to mark its outer end. This light was originally a fixed white light; on July 20, 1902, it was changed in colour to red, and on November 15 a white light was added. The light, therefore, shows as a fixed red light, with a fixed white light four feet below it. Both lights are shown from lens lanterns hoisted on a braced mast erected 20 feet inside the extremity of the breakwater. The red light is about 23 feet above the lake.

The new breakwater terminates in a block 100 feet long, 60 feet wide and rising 13 feet above the lake level. The southeast, or outermost, corner of this block is 2,400 feet S 17° W. from Port Colborne main light. The range of lights on the west side of the old entrance, as at present located, leads 110 feet to the eastward, or clear, of this corner.

This Department, by arrangement with the Public Works Department, has had built in the outside block a concrete foundation for the permanent lighthouse which will eventually be established to mark it.

Pelee passage.—Work was continued on the lighthouse described in previous reports on the middle ground, and the lighthouse tower was erected and the light put in operation in it on July 4, 1902.

The tower is of steel plates, built in the form of the frustum of a cone, surmounted by a polygonal iron lantern, standing upon a cylindrical steel caisson filled with concrete and masonry, surrounded by a polygonal timber cribwork, rising 5 feet above the water level of the lake. The height of the lighthouse from the deck of the foundation pier to the vane on the lantern is 66 feet. The pier is brown, the tower white and the lantern red.

The light is a white light, showing two bright flashes of ·58 second duration each, separated by an eclipse of ·85 second duration, and followed by an eclipse of 5·48 seconds duration, the total period being 7·49 seconds.

The light is elevated 75 feet above the level of the lake, and should be visible 14 miles from all points of approach by water. The illuminating apparatus is dioptric of the third order, and was purchased from Messrs Chance Bros. & Co., of Birmingham. It cost $3,216.47. The illuminant is oil vapourized and burnt under an incandescent mantle.

A steam fog siren, built into the base of the building, was put in operation on October 1, 1902. It projects from the north side of the tower at an elevation of 28 feet above the lake, and gives blasts of 7 seconds duration, with intervals of 30 seconds between them.

In consequence of the exceptionally stormy season it was found impossible to complete the cribwork protection around the concrete pier.

Cape Croker.—A light and fog alarm were put in operation on the outer extreme of the point one and a half miles southeastwardly from Cape Croker, on July 5, 1902.

The combined lighthouse and fog alarm building is a wooden structure, surmounted by a square wooden lantern, and stands 65 feet back from the water's edge. It is 25

feet high from its base to the top of the ventilator on the lantern, and is painted white. The keeper's dwelling, which stands 43 feet behind this building, is a rectangular wooden building, painted white.

The light is an occulting white light, visible for twenty-five seconds and eclipsed for five seconds, alternately. It is elevated thirty-one feet above the water level of Georgian bay, and should be visible ten miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order, and the illuminant a fifty-candle power incandescent lamp. In the event of the electric power at any time failing temporarily, a fixed white oil light will be shown until the occulting light can again be put in operation.

In thick weather a fog horn, operated by electricity, will be sounded for five seconds, with silent intervals of twenty-five seconds, alternately, the horn sounding while the light is occulted, and the horn being silent while the light is bright.

This is the first installation in Canada of an electric light and fog alarm operated by power developed in the lighthouse. The buildings were erected by Mr. Alexander Green of Owen Sound, whose contract price was $3,559; the gasoline engines and electric plant, which are in duplicate, were furnished by Mr. A. Trudeau of Ottawa, at a cost of $3,358.78.

In August the electric machinery failed to work satisfactorily, and since then only a fixed white light has been shown.

Meaford.—Cribs have been sunk for a 300-foot extension northward of the east pier, now in course of construction by the Public Works Department and a white lantern light maintained by the corporation is shown at night on a pole about twelve feet high near the north end of the cribs.

Richards landing.—Since October 30, 1901, a fixed white light, shown from a square tubular lantern with reflector, standing upon a shelf placed on the southeasterly corner of the warehouse on the wharf, has been maintained by the government wharfinger.

It is elevated sixteen feet above the level of the water, and should be visible three miles from all points of approach.

The shelf on which the lantern stands is ten feet high, and is painted white.

Stribling point.—For many years temporary range lights were maintained by the Lake Carriers' Association at this point, on the northwest end of St. Joseph island. These were taken over by this Department in 1900, and this year towers were erected to replace the masts from which lights were shown. The permanent lights from these towers were first shown on August 7, 1902.

The front tower stands 190 feet inside the shore line, on low land, and is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The height of the tower from its base to the top of the ventilator on the lantern is 33 feet.

The light is elevated 30 feet above the water, and should be visible 3 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The back range tower stands on the hillside, 1,447 feet S. 65° 48′ E. from the front tower. It is a square, wooden building, surmounted by an octagonal wooden lantern, the whole painted white. The height of the building from its base to the top of the ventilator on the lantern is 23 feet.

The light is elevated 53 feet above the water, and should be visible 4 miles in the line of range. The illuminating apparatus is catoptric.

The two lights in one lead through the middle of the dredged channel of the Middle Neebish from its intersection with the alignment of the lower Hay lake range lights to its intersection with the alignment of the Harwood point range lights.

A strip 50 feet wide on each side of the alignment has been cleared of trees up to the top of the hill behind the back tower. This cut in the woods shows very distinctly, and makes an excellent day mark when vessels are in the alignment.

The buildings were erected by Mr. H. W. Ross of Sault Ste. Marie, Ont., whose contract price was $995.

Coppermine point.—A temporary light was established on the opening of navigation in 1901, by the Algoma Central steamship line, on the extremity of this point.

The light is fixed white, shown from a lens lantern, elevated forty-six feet above the water of the lake, and should be visible twelve miles from all points of approach; the illuminating apparatus is dioptric of the seventh order.

The lantern stands on the top of an open framed, square, pyramidal, wooden tower, standing upon the bluff at the northwest extremity of Coppermine point. The tower is twelve feet high to the table on which the lantern stands, and is whitewashed.

Michipicoten harbour.—A lighthouse, built on the southeast extremity of Little Gros Cap, entrance to Michipicoten harbour, was put in operation in August, 1902, replacing a temporary lens lantern light maintained since the opening of navigation.

The lighthouse is a square wooden building, surmounted by a square wooden lantern rising from the middle of the cottage roof. The building and lantern are painted white. The roof of the building is red. The lighthouse is 31 feet high from its base to the top of the ventilator on the lantern, and is located on the summit of Little Gros Cap, on land 46 feet above the level of the lake, and 120 feet back from the water's edge.

The light is a fixed white light, elevated 70 feet above the water level of the lake; it should be visible 14 miles from all points of approach by water, but is not visible from the wharves in the harbour. The illuminating apparatus is dioptric of the seventh order.

The lighthouse was built by Mr. J. Candlish Kennedy, of Owen Sound, whose contract price was $2,570. Tenders for this work were invited in 1901, but the lowest tender received, $4,857, was so much above my estimate, that the work was postponed and new tenders invited.

CHANGES AND PRINCIPAL IMPROVEMENTS IN EXISTING AIDS.

Ste. Placide.—A lighthouse, from which the back light of the downstream range is exhibited, has been erected to replace the mast from which the light has heretofore been exhibited. The mast and day beacon have been removed.

The tower stands on the top of the bank, east of the parish church, 340 feet N. 11° W. from the front light, It is a wooden building, square in plan, with sloping sides, and is painted white. The height of the tower from its base to the top of the ventilator is 23 feet.

The light is elevated 48 feet above the summer level of the lake, and should be visible 3 miles in the line of range. The illuminating apparatus is catoptric.

The building was erected by day's labour, under the supervision of Mr. H. E. Fosbery, of my staff, and cost $258.79.

Frenchman bay.—The lighthouse on the south end of the east pier head, formerly stood on a cribwork block raised 10 feet above the deck of the pier. This block has been removed and the lighthouse has been lowered to the deck of the pier. At the same time the foundation of the tower in the cribwork of the pier is being rebuilt. The work is being done under the direction of Mr. H. A. Gray, Resident Engineer, P.W.D., in connection with extensive repair work on the breakwater, at an estimated cost of $1,500.

Burlington channel.—Pending the execution of repairs to the inner end of the south pier protecting the channel into Burlington bay, it has been found necessary to temporarily discontinue the exhibition of the red and white lantern lights hoisted on a mast on the pierhead.

Kingsville.—In consequence of damage done by ice to the outer end of the east breakwater pier, it was necessary to remove the outer range light building temporarily, and no light was shown from the pierhead from the opening of navigation until May 15, 1902.

Elliott point.—The character of the illuminating apparatus used in the private range lights here was changed from dioptic to catoptric.

Kincardine.—The front range lighthouse on the north pier was burned down on July 9, 1902. A fixed red light has since been shown from a lantern hoisted on a pole 28 feet high, erected on the site of the tower. A contract has been let for the construction of a new lighthouse having a wooden lantern supported on a galvanized steel open frame.

Flowerpot island.—On the opening of navigation in 1902, the fog bell heretofore in use was replaced by a bell erected on a platform detached from the lighthouse, and giving one stroke every seven seconds. This broke down in the beginning of August, 1902, and was for a time replaced by a hand fog horn. The fog alarm here has never been satisfactory.

Thornbury.—On June 1, 1902, the light shown from the back range mast was changed in colour from white to red, to distinguish it from the town lights, and its strength was increased by substituting for the pressed lens lantern previously used a lantern with a dioptric lens of the seventh order.

Snug harbour and Jones island.—To render them more conspicuous against the backgrounds, which are usually dark, the two buildings from which the Snug harbour range lights, as well as the two from which the Jones island range lights are shown, which all had red stripes down the sides facing the channel, were on the opening of navigation, in 1902, painted white throughout, including roofs of lanterns and dwellings.

Narrow island.—The lighthouse was destroyed by fire on March 30, 1902. On April 27, a fixed white, dioptric light of the 7th order, was shown from a lantern hoisted on a pole erected on the site of the lighthouse. It should be visible 7 miles from all points of approach. The operation of the hand fog horn was at the same time resumed.

A contract has been let for the construction of a new lighthouse, with keeper's dwelling attached.

Hilton.—Information has been received that no private light is now maintained on Hilton wharf.

Pointe aux Pins.—The light on the south extremity of the point has been strengthened by substituting for the reflectors heretofore used extra large reflectors in the axis of the channel both up and down the river, and by adding a light shown through a small pressed lens to reinforce the illumination on other bearings.

It is intended during the coming year to erect range lights here to lead up the reach from the upper ends of the channels dredged from the two canals.

Mouth of Rainy River Range.—The front tower of this range was overturned by ice last spring, and the pier on which it stood was greatly damaged.

In place of the permanent light a fixed white light has been shown during the season from a lens lantern hoisted on a mast erected on the remains of the pier.

A contract has been awarded for the construction of two cribwork piers, to serve as foundations for both lighthouses at this place, the foundation of the back tower also requiring renewal, and the work will be prosecuted on the ice during the coming winter.

MINOR REPAIRS.

The following list, prepared by Mr. P. Harty, inspector of lights, shows the expenditure on repairs and maintenance in Ontario, in 1902 :

Light Station.	Repairs or Supplies.	Cost.
		$ cts.
Aylmer	Installation of acetylene gas plant	81 50
Bamford island	Labour and repairs	6 00
Baskin wharf	Replacing masts by towers and installing acetylene plant	787 55
Bishop bay	Building dwelling	200 00
	General repairs	43 03
	Repairing boat	15 00
Black Bear island	Repairs	39 90

Station.	Repairs or Supplies.	Cost.
		$ cts.
Browns point	Repairs to dwelling	83 42
Cabot head	Repairs to fog alarm	13 90
Cape Croker	New boat	50 00
Channel island	Repairs	89 15
Chantry island	New boat house	105 18
Clapperton island	Repairing boat	18 77
Coburg	" oil house	31 00
Colchester reef	" breakwater	1,869 60
Coppermine point	Painting	7 62
Deep River island	New boat	45 00
Dorval	On account of rebuilding pier	443 28
East gap, Toronto	Repairs	7 00
False Ducks	Whitewashing and repairs	28 35
Flowerpot island	Balance for repairs	26 25
Ferris island	Hardware	17 31
Frenchman bay	On account of repairs to foundation	126 75
Gargantua	New boat and freight	44 70
Gibraltar point	Lumber for repairing fence	40 00
Stonehouse point	Repairs to foundation of tower	95 00
Goderich	Painting	29 20
Gull harbour	Supplies and freight	39 20
Gull island	Repairs to pier and whitewashing tower	341 54
Hooper point	Building dwelling	202 40
Jones island	Boat	40 00
	Repairs	127 00
Kagawong	Repairs to tower	29 80
Kincardine	Repairs	174 94
Kingsville	Painting	5 00
Lake St. Louis lightship	Lumber	15 00
	Boat	18 00
Chateauguay lightship	"	18 00
Lamb island	Lumber for repairs	5 18
Limekiln crossing	Painting	7 00
Little Current	Repairs to tower	19 13
	New boat	38 00
Lonely island	Lumber for wharf	25 00
Long point, west end	" repairs	21 80
Lyal island	Boat and freight	38 04
Lake St. Francis middle ground	Boat	30 00
Little Gros cap	Boat and freight	16 48
Michael bay	Making new road	30 00
Middle island	Painting and repairing	37 40
Midland ranges	Cutting trees	8 00
Nine Mile point	Repairs to dwelling and tower	56 84
Oka	Installation of acetylene plant	114 50
Peninsula harbour	Painting	8 75
Pointe au Baril	"	6 00
Pointe aux Pins	Cost of protecting lot and freight on supplies	101 38
Point Clark	General repairs	101 25
Port Maitland	Painting	6 00
Port Stanley	"	5 00
Presqu'isle ranges	"	7 50
Rainy river	Repairs	94 43
Red river ranges	Hardware and freight	72 76
Red rock	Repairing roof	9 00
River Thames	" boat	25 00
Rondeau	Repairs	24 05
Saugeen	Boat and labour	10 00
Snake island	Repairs to boathouse	11 35
Snug harbour	Boat	50 00
South bay point	Building scow	61 22
Spectacle shoal	Lumber and labor	102 48
Squaw island	Repairs	32 83
	Repairing boat	13 75
Tomahawk island	Repairs and tug hire	87 12
Victoria island	Lumber for walks	17 00
Wiarton	Repairs	8 25
Wolfe island	Lumber	15 00

BUOYS AND BEACONS.

River St. Lawrence 14-foot channel buoys.—The new 14-foot channel in the River St. Lawrence connecting the canals between Lachine and Prescott is marked by buoys which have been established at different times, principally by the Department of Railways and Canals of Canada in 1900 and 1901. These aids to navigation were, on the opening of navigation in 1902 taken over for maintenance by this Department, and both they, and the buoys previously maintained under separate contracts by us, were placed in charge of Mr. J. F. Fraser, of my staff, as district engineer. As the contracts lapse the buoys will be maintained by the Department, with an increase in size and efficiency. The service has already been systematized.

Spar buoys average 24 feet in length, and are placed close to the edges of the channel in 16 to 18 feet water.

Gas buoys are cylindrical, surmounted by slatwork cages, on top of which are the red gas lanterns, showing bright or white lights at an elevation of 9 feet above the water, which should be visible 4 miles.

All red buoys will eventually carry conical cages and automatically occulted lights; and black buoys, can-shaped cages and fixed lights.

The colours of all buoys conform to the international rules. The buoys are numbered between Montreal and Kingston in four sections, in accordance with the same rules; those in Lake St. Louis, including the buoys below the Lachine rapids being lettered **S**; in Lake St. Francis, **F**; those from Cornwall to Prescott, **U**; and the buoys from Prescott to Kingston, **T**.

The numbers and letters indicating districts are placed upon the larger buoys in white characters 12 inches high.

We took over from the Department of Railways and Canals 115 spar buoys and 26 gas buoys, distributed as follows: 6 in Lake St. Louis, 12 in the Lake St. Francis stretch, and 8 above the Cornwall canal. Since the service was taken over we have made the following improvements:

Soulanges Canal.—The buoys at the upper entrance of the Soulanges canal were rearranged, two black spar buoys marking lumps on the east side of the channel being removed when the lumps were dredged off, and a red spar buoy being placed.

St Regis dyke.—The establishment of range lights on St. Regis dyke resulted in the discontinuance of gas buoy No. 95 F, and spar buoy No. 97 F, and in changing the position of black gas buoy No. 99 F, as detailed in describing the new lights.

Farran point.—On November 7, 1902, red gas buoy No. 38 U, below the lower entrance of Farran point canal, was permanently discontinued.

Head of Farran point channel.—At the same time, red spar buoy No. 40 U, marking the upper entrance to the channel between Farran point and Croil island, was replaced by a red gas buoy, showing a fixed white light.

Vessels bound up light pass on the starboard side of this buoy, but must leave spar buoy No. 42 U on the starboard hand.

Head of North channel.—About 10th November, 1902, red spar buoy No. 156 U, used to mark the northwest edge of the dredged cut at the upper end of North channel, during the progress of the work, being no longer required, was discontinued.

Red gas buoy No. 154 U was moved from its previous location east of the end of the breakwater on the northwest side of North channel upper entrance, to a new position 75 feet due south of the south corner of the terminal crib.

Point Erie.—This point was originally marked by a group of three spar buoys. In June, these were replaced by a swift current black can buoy, No. 161 U, a much more conspicuous and reliable mark.

Macnair shoal spar buoy.—On April 7, 1902, a spar buoy, painted in red and black horizontal stripes, and numbered 4, was placed by the United States lighthouse authorities in 15 feet of water, near the centre of Macnair shoal, a rocky ledge with

thirteen and seven-tenths feet water over it at extreme low water, found in 1901, about midway between Macnair island and the Canadian shore, below Brockville, abreast of Morristown, New York.

Waverly shoal gas buoy.—About October 15, 1902, a gas buoy, painted red and black in horizontal stripes, and showing a white light during periods of ten seconds, separated by eclipses of ten seconds' duration, was established by the United States government in twenty feet of water, near the western end of Waverly shoal, eastern end of Lake Erie, in the approach to Buffalo harbour from the westward, replacing a can buoy previously maintained there by the same government. This buoy is probably on the Canadian side of the boundary line, but it is of use only to vessels bound to or from Buffalo.

Middle ground gas buoy.—The maintenance of this buoy was discontinued, the middle ground being sufficiently marked by the new lighthouse, as well as by the three spar buoys established in 1901.

Grubb reef gas buoy.—The gas buoy no longer required on the middle ground has been utilized to mark this danger, on the north side of Pelee passage. It was moored in 25 feet of water on May 16, 1902.

The buoy is a cylindrical iron buoy, painted red, surmounted by a red can-shaped slatwork cage bearing a red lantern, from which an occulting white light is shown, elevated eight feet above the water. The light should be visible four miles from all points of approach. It is cut off automatically for a short time at intervals of about ten seconds.

Limekiln crossing.—The Lake Carriers' Association have placed three red lights on floats moored near the spar buoys maintained by this deparment to mark the east edge of the Limekiln crossing cut.

Seguin bank gas buoy.—This buoy was found overturned and badly damaged early in November, 1902; it was therefore found necessary to remove it for the remainder of the season. To its moorings a black spar buoy, surmounted by a white flag, was attached. We have had trouble every autumn with this buoy, in consequence of the extremely heavy sea in the locality.

Rains dock gas buoy.—In June, 1902, a gas buoy, painted red with "Rains Dock No. 20" in white, and showing a fixed red light during periods of ten seconds, separated by eclipses of ten seconds' duration, was established by the United States government, in 22 feet of water, in place of the red spar buoy, on the easterly edge of the cut, and about midway between Johnson's point and Rains island shoal float lights, at the middle of the turn from the new cut into Dark Hole passage, River St. Mary. This is in Canadian waters, but marks the channel improved by the United States government for their deep draught vessels.

Lake of the Woods bell buoy.—A steel bell buoy provided by this Department, but placed and to be maintained by the Rat Portage and Keewatin lumber companies, was on the opening of navigation this spring moored on the end of the shoal off the sand hills at the mouth of Rainy river. The buoy was built by the St. John Iron Works, St. John and with its moorings cost $817.26 delivered.

QUEBEC LIGHTHOUSE DIVISION.

This district extends from the entrance of the Strait of Belle Isle to Montreal, a distance of over 1,200 miles, and includes aids to navigation in the Richelieu river and Lake Memphremagog, as well as in the River St. Lawrence, Saguenay river, Lake St. John, Chaleur bay, Gulf of St. Lawrence, Strait of Belle isle, north and west coasts of Newfoundland and Labrador.

This division is under the control of Mr. J. U. Gregory, agent of the Department of Marine and Fisheries, at Quebec, who is also shipping master, attends to the requirements of the British Board of Trade in matters of shipwrecked and distressed seamen

and casualties at sea, is receiver of wrecks, supervisor of wharfs, a fisheries officer for the province of Quebec, and superintendent of the signal service.

The agent's staff consists of Mr. L. A. Blanchet, chief clerk and accountant, and deputy shipping master; Mr. George D. O'Farrell, lighthouse inspector; Mr. Alphonse Hamel, clerk; and Mr. P. J. O'Brien, storekeeper and wharfinger, with assistants as required.

The workshops with a large stock of models of various kinds needed for the service are under Mr. Ernest Roy, master carpenter, and Mr. Narcisse Dufour, master-shipsmith. The gas works are under Mr. G. Bélanger.

The steamers at the disposal of this agency during the past year were the chartered steamer *Contest* which attended to gas and other buoys, as well as beacon service from Batiscan to Father point. This vessel has since been replaced by a new and powerful steamer the *Druid*.

The steamer *Aberdeen* supplied the lights in the river and Gulf of St. Lawrence, Strait of Belle isle, Anticosti, Magdalen islands and Chaleur bay.

The lights above Quebec were supplied by passenger steamer or by rail as proved most economical and convenient.

The buoys between Platon and Montreal are under the supervision of Mr. U. P. Boucher, as engineer, who has the steamer *Shamrock* allotted to him for this service.

There have been put in operation, between Quebec and Montreal, 12 new lights since my last annual report, which now brings the total number of aids to navigation in this division to 200 lights at 121 stations, 6 lightships, 3 of which are supplied with powerful steam fog whistles, one powerful first order siren blown by compressed air, 9 explosive bomb signal stations in connection with lights, 2 steam fog whistles and 9 steam fog horns; 12 gas buoys, 4 of which are supplied with bells, 170 wooden and iron buoys and 59 beacons.

NEW AIDS TO NAVIGATION.

Point Echouerie.—A lighthouse, standing 75 feet inside the extremity of this point, was put in operation on October 15, 1902, and is a square wooden building, with sloping sides, painted white, surmounted by an octagonal iron lantern, painted red. It is 34 feet high from its base to the ventilator on the lantern, the light being fixed white dioptric, elevated 52 feet above high water mark, and visible 12 miles from all points of approach by water. This lighthouse was erected by the department by day's labour, under the supervision of Mr. P. A. Perron, at a cost of $1,667.73.

Port Daniel.—A lighthouse was put in operation on October 15, 1902, on the outer end of the wharf at this port, and is a square wooden building with sloping sides, surmounted by a square wooden lantern, the whole painted white. It is 29 feet high from the top of the wharf to the ventilator on the lantern, the light being fixed white dioptric, elevated 35 feet above high water mark, and visible 11 miles from all points of approach by water. The lighthouse was erected by the department, under the supervision of Mr. P. A. Perron, at a cost of $794.47.

Fame Point.—A Hamilton-Foster fog siren was put in operation on October 8, 1902, at this lightstation.

The fog alarm building is a small wooden structure, painted white, with a flat roof, and stands on the edge of the cliff, 180 feet northwestwardly from the lighthouse. The siren is elevated 150 feet above high water mark.

The siren will give blasts through four megaphones, pointed by compass respectively north, northeast, east and southeast, in the following succession:

First, one short blast through the megaphone pointed north; then two short blasts through the megaphone pointed northeast; next one short and one long blast through the megaphone pointed east; and finally two short blasts and one long blast through the megaphone pointed southeast. The interval between the beginning of the signal through one megaphone and the beginning of that through the next is 9 seconds; and the silent interval between the end of one series and the beginning of the next is about 40 seconds, the machinery completing a revolution in 70 seconds.

It is claimed that a mariner can tell the direction in which the siren bears from him by the relative audibility of the several signals.

If he hears the single blast loudest, or hears only a single short blast, the siren should be due south of him by compass; similarly, if the two short blasts are the loudest, the signal is southwest of him, and so on throughout the series. This system of directing the sound is considered by the department to be in the nature of an experiment, and must not be depended on absolutely until it has been proved, for indicating direction. Even if this fails in practice the siren can be utilized as an ordinary fog alarm.

The fog siren machinery was supplied by the Hamilton-Foster fog signal company of New York, and cost $5,250. The building was erected by day's labour under the foremanship of Mr. D. Mahon.

Lower Traverse.—On July 29, 1902, a cribwork pier was sunk in 23 feet at low water spring tides, on the extreme north point of the shoals of St. Roch, at the point previously marked by a black can buoy, and about 600 feet southwesterly from the station lately occupied by the Lower Traverse lightship, to form the foundation for a permanent lighthouse.

The pier is rectangular, with two pointed sloping ends; below low water mark it is of wood, and above water it is of concrete and steel.

While construction is in progress, two temporary fixed white lights are being shown from anchor lens lanterns, hoisted on poles, at an elevation of 19 feet above the construction platform, or 29 feet above high water mark, one from its downstream end and one from its upstream end, both visible six miles from all points of approach.

The contractors for this work are Messrs. Dussault & Lemieux, of Lévis, who constructed the caisson in the basin at Quebec, floated it down to the site and successfully sank it there.

The contract price for the construction of this pier is $80,500.00. In consequence of the extraordinary inclemency of the season, it was impossible for the contractors to complete their work, as they had intended doing.

Ile Verte.—A new light has been established on the extremity of the government wharf, consisting of a pole 16 feet high, with a small shed at its base; and a Felthausen & Russel dioptric lantern was installed.

The work was done under the supervision of the Quebec agency at a cost of $46.51.

Point Nicholas.—The semaphore previously maintained at Cap Santé was removed to Point Nicholas to indicate to pilots the depth of water on St. Augustin bar, now the only point on the river not dredged to at least 27½ feet at low water.

The least depth on St. Augustin bar, in the alignment of Pointe à Basile range lights, as indicated on the Public Works Department chart of the ship channel, is 23 feet, and the gauge is set to the same zero; the semaphore will therefore indicate the depth on the bar.

St. Antoine de Tilly.—On May 1, 1902, three range lights were established at this place.

The front light of the upstream range is fixed white catoptric, elevated 36 feet above high water mark and is visible 6 miles in, and over a small arc on each side of, the line of range.

The lighthouse is a square, wooden tower, with sloping sides, surmounted by a square wooden lantern, painted white, with the lantern roof red. Its height from the base to the vane on the lantern is 30 feet. The tower stands just above high water mark on the west side of the low flat part of St. Antoine point and is distant 2640 feet N. 56° W. from St. Antoine village church.

The back light of the upstream range, which is also the front light of the downstream range (indicating the traverse at the foot of Trembles shoal), is fixed white dioptric, elevated 68 feet above high water mark, and visible 9 miles from all points of approach by water.

The lighthouse tower is a square building with sloping sides, consisting of an open steel framework painted brown, surmounted by a wooden lightroom painted white and

topped with a square wooden lantern painted red. The height of the tower from its base to the vane on the lantern is 65 feet.

It stands upon a cribwork pier 5 feet high, painted black, and is distant 826 feet N. 88° 30' E. from the front light tower.

The back light of the downstream range is fixed white catoptric, elevated 203 feet above high water mark, and visible 16 miles from all points of approach by water.

The tower is exactly the same as that of the front light of the downstream range, and stands on the crest of the hill behind the point, distant 825 feet S. 65° W. from the upstream range back light.

These lighthouses were erected by day's labour, under the supervision of Mr. E. Roy, at a cost of $4,159.63, which includes $1,184 paid Messrs. Gould Shapley & Muir of Brantford for two galvanized steel frames.

Ile Marie and Ile Bouchard.—Two range light towers known as the Ile Bouchard range, have been erected in the continuation eastward of the new dredged channel between Verchères point and Cap St. Michel. It is not proposed to put lights in operation in these towers at present, but the buildings are now available for use as day beacons.

The front tower, standing on a high cribwork pier off the east extremity of Ile Marie, is a square wooden building with sloping sides, surmounted by a square wooden lantern.

The height of the tower, from the pier to the ventilator on the lantern, is 28 feet; the focal plane of the light when established will be 39 feet above the river. The pier and tower are white, and the lantern roof red.

The back tower, erected near the south east shore of Ile Bouchard, and distant 8200 feet N. 51° 15' E. from the front tower, is a square building with sloping sides, consisting of an open steel framework painted brown surmounted by a wooden watchroom painted white and topped by a square wooden lantern painted red. The height of the tower from its base to the ventilator on the lantern is 65 feet. The focal plane of the light when established will be 75 feet above the river.

Verchères traverse.—Two range lights were established on May 1, 1902, to indicate the axis of the ship channel in crossing from the straight cut that now extends between Contrecœur and Ile aux Prunes to the straight cut that extends between the point above Verchères and Cap St. Michel curve.

The front light, erected on the south shore of the river, 8,570 feet N. 57° 50' E. from Verchères village church, is fixed white catoptric, elevated 36 feet above the summer level of the river, visible eleven miles in, and over a small arc on each side of, the line of range, and is shown from a square wooden tower with sloping sides surmounted by a square wooden lantern, standing upon a cribwork pier.

The pier and tower are white, and the lantern roof red; the height of the tower from the pier to the ventilator on the lantern is 23 feet.

The back light, distant 1,900 feet N. 70° E. from the front light, is fixed white catoptric, elevated 43 feet above the summer level of the river; visible twelve miles in, and over a small arc on each side of, the line of range, and is shown from an octagonal wooden lantern built on the summit of the second old stone windmill below Verchères. The windmill is whitewashed and the lantern is painted white with red roof. The height of the building from the ground to the ventilator on the lantern is 41 feet.

Verchères village.—Two range lights were established on May 1, 1902, in the prolongation of the axis of the new ship channel dredged between Ile Bouchard and the south shore, which in one will lead from the intersection of their alignment with that of the Contrecœur range lights to the intersection of their alignment with that of the Verchères traverse range lights.

The front light is fixed white catoptric, elevated 44 feet above the summer level of the river: visible 12 miles in, and over a small arc on each side of, the line of range, and is shown from a square wooden lantern on a square wooden tower with sloping sides standing upon a cribwork pier, 380 feet S. 61° E. from the outer end of the village wharf.

The pier and tower are white and the lantern roof red; the height of the tower from the pier to the ventilator on the lantern is 31 feet.

The back light, distant 1,950 feet S. 54° 30' W. from the front light and 1,160 feet S. 88° 50' W., from the village church, is fixed white catoptric, elevated 85 feet above the summer level of the river, visible 15 miles in, and over a small arc on each side of, the line of range, and is shown from a square tower with sloping sides, consisting of an open steel framework painted brown, surmounted by a wooden watch-room painted white, and topped by a square wooden lantern painted red. The height of the tower from its base to the ventilator on the lantern is 65 feet.

Ile Deslauriers range.—Two range light towers, known as Ile Deslauriers range, were put in operation on May 1, 1902.

The front light, erected on the east shore of Ile Deslauriers, is fixed white catoptric, elevated 37 feet above the summer level of the river, visible eleven miles from all points of approach in the channel, and is shown from a square wooden tower with sloping sides, surmounted by a square wooden lantern, standing upon a cribwork pier. The pier and tower are white and the lantern roof red. The height of the tower from the pier to the ventilator on the lantern is 19 feet.

The back light, erected on the east shore of Ile Ste. Thérèse, and distant 9,430 feet, S. 51° 15' W. from the front light, is fixed white catoptric, elevated 73 feet above the summer level of the river, visible fourteen miles in, and over a small arc on each side of, the line of range, and is shown from a square tower, with sloping sides, consisting of an open steel framework, painted brown, surmounted by a wooden watchroom painted white, and topped by a square wooden lantern, painted red. The height of the tower from the ground to the ventilator on the lantern is 65 feet.

These lights, as well as the three pairs of range light towers last described, were erected by day's labour, under the foremanship of E. Roy. All are on sites subject to overflow in the spring, and all are therefore built on concrete pier foundations, which increased the cost of construction. The expenditure in connection with the erection of the eight lighthouses was $9,859.15.

Ile à l'Aigle.—Two range lighthouses have been erected at this station, which in one indicate the axis of the improved ship channel in Varennes traverse.

The alignment marked by the buildings is that of the axis of the widened channel, and is parallel to, but 75 feet north of, the axis of the old channel, marked by the two day beacons formerly maintained at this station.

The front building stands on the north-west shore of the low island, 1,810 feet N. 21° W. from Ile Ste. Thérèse upper range back light, 4,340 feet S. 59° W. from Ile aux Vaches front light and 142 feet S. 46° W. from the old front day beacon, and consists of a pentagonal wooden lantern, painted white, standing on a rectangular whitewashed concrete pier, with a pointed nose, and sloping sides. It is 30 feet high from the ground to the top of the ventilator on the lantern.

The back building stands on the south-east shore of the island, 1,543 feet S. 17° W. from the front one, and is a square wooden tower, with sloping sides, surmounted by a square wooden lantern, the whole painted white, standing on a rectangular whitewashed concrete pier, with a pointed nose and sloping sides. It is 52 feet high from the ground to the ventilator on the lantern. Both lights are fixed white catoptric, visible two miles in the line of range; the front one elevated 30 feet, and the back one 52 feet above the summer level of the river.

The front range building is in the axis not only of Varennes traverse, but also in the axis of Ile aux Vaches traverse, and will ultimately serve as the front light of a range to lead up from the curve off the foot of Ile aux Vaches to Pointe aux Trembles curve. It is intended to remove the Pointe aux Trembles range lighthouses, which no longer mark the middle of the channel, utilizing the back range tower, a new steel structure, for the back light of the new range. This back light will be in the village of Varennes.

CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

Father point.—The illuminant in the lighthouse at Father Point, was, on July 28, 1902, changed from petroleum to acetylene. This will cause the light to be whiter in colour, and it is claimed that it will be very much more powerful than the oil light.

Lower Traverse.—In consequence of the marking of the point of St. Roch shoal by a cribwork pier, the Lower Traverse lightship was, on August 5, 1902, removed from that locality to its old position, in seven and a half fathoms of water, about one-half mile down stream, in a northeasterly direction from the pier.

Upper Traverse.—On the opening of navigation this year, an occulting gas light was installed in the lighthouse on the pier at the upper end of the Traverse of St. Roch. As this was not sufficiently powerful to be satisfactory, it was on the 1st July changed by substituting for the occulting gas light, a fixed, white, catoptric oil light. The temporary wooden lantern which originally surmounted this tower has been replaced by a polygonal iron lantern painted red.

Cap Santé.—In consequence of the completion of the dredging in the cut across Ste. Croix bar to ship channel depth, the semaphore operated at Cap Santé since 1897, has become unnecessary; its operation has therefore been discontinued and it has been taken down and utilized at Point Nicholas.

St. Antoine upper light.—Three new range lights having been established at St. Antoine de Tilly, it has been found unnecessary to continue the double light, heretofore maintained on the point above St. Antoine, which has been, therefore, permanently discontinued.

Port St. Francis.—The wooden tower, from which the back range light was shown, was destroyed by storm in September, 1901, since which time a temporary light from a lantern hoisted on a mast has taken its place. This temporary light was discontinued on June 21, 1902, and replaced by a light shown from the skeleton steel tower, square in plan, with sloping sides, surmounted by a square galvanized iron lantern, which was removed from Ile aux Prunes when the lights in that district were rearranged.

The height of the tower from the deck of the timberwork pier to the vane on the lantern is 31 feet.

The tower is made more conspicuous as a day mark by having a target of wooden slats attached to the upper half of the upstream face.

The skeleton steelwork is painted brown. The target and upper part of the tower are painted white.

The light is fixed white catoptric, elevated 36 feet above the summer level of the river, and visible 11 miles from all points of approach by water.

Ile aux Prunes.—In consequence of the establishment of the new range lights already described in the improved ship channel passing Verchères, this old light became unnecessary and has been discontinued.

North of Halfway point.—The front lighthouse of this range was overturned by ice in the spring of 1902. Until repairs could be made, a temporary light shown from a lantern hoisted on a pole was exhibited. On July 28, 1902, the light was again shown from the front range tower. In making repairs, the range was improved by placing the tower on a new cribwork pier, built on the edge of the river, 345 feet in front of the old site, so that the front tower now stands S. 17° W., 1,158 feet from the back one. The tower was also decreased in height so that it is now only 13 feet high. The light is elevated 15 feet above high water mark and should be visible eight miles in the line of range. The work of removing and repairing was done under contract by Mr. A. Boivin. His contract price with extras was $708.

MINOR REPAIRS at Quebec Stations during the year ended June 30, 1902.

Station.	Nature.	Cost.
		$ cts.
Algernon rock	Steel plating to pier	37 00
	New boat supplied	35 00
Amherst island	Stone foundation of dwelling repaired	11 50
Anticosti:—Heath point	New windows fitted to tower and a new signal service flagstaff	153 24
South point	Repairs to tower and building	30 50
South-west point	New boat supplied	37 50
	Lamps repaired	42 85
West point	Repainting and repairs to tower	147 80
	Repairs to outbuildings	94 13
	New boat supplied	50 00
Ash and Bloody islands	New foundations placed	234 37
Baie St. Paul	Tower repainted	15 00
	New stove supplied	13 00
Batiscan front tower	Foundation renewed	80 35
	Repairs to lantern gallery	9 10
	Repainting tower	3 00
Barre-à-Boulard	Cutting down trees obstructing light	3 00
	Ladders repaired	2 40
Bellechasse	Platform repaired, new steps, trolley ways and boat ways completed	131 02
	New sail boat supplied	37 50
	New flat boat supplied	15 00
Belle isle	Tower clapboarding renewed	
	New storehouse erected	
	Water pipes for extension of power	1,354 56
Bersimis	Repairs to building	2 40
Bicquette	Well repaired, new pump fitted and boilers repaired	166 48
Bird rocks	Boiler and steam winch repaired, iron tank fitted, tower and outbuildings repainted, new landing bridge placed, electric batteries repaired, new boat supplied	387 15
Brandy Pots	Repairs to tower and oil store	16 07
	New halyard for flagstaff	2 50
Cap au Saumon	Adjusting fog horn machinery	283 23
Cap aux Oies	Repairing lantern gallery, painting tower and buildings	72 55
Cape Bauld	Repainting tower and buildings, new landing stage supplied	57 00
Cape Charles	Repairing lamps and oil store	29 30
Cape Chat	New lamps supplied	27 50
	Repairs to dwelling	20 00
Cape d'Espoir	Lantern gallery and roof repaired	44 00
	Wire ladder supplied	5 00
	Assistance repainting	5 00
Cape Gaspé	New firing jib supplied	20 42
Cape Magdalen	New lanterns supplied	14 25
Cap de la Madeleine	Back tower foundation repaired	27 50
	New steps supplied	15 75
	Lanterns repaired	12 05
Cape Norman	Repairing boiler and supplying new smoke stack	65 43
Cape Ray	Boiler tubes supplied	
	Repairs to dwelling	57 28
Cape Rosier	Turning whistle boiler and refitting	654 83
Carleton	Repairing lantern and assistance repainting	25 00
Champlain	Repainting tower, providing new lamps	31 85
Chicoutimi	Repairing wharf light	2 80
	Front pole light supplied	14 90
	Repairing Savard range lights	13 55
	Repairs to back light	8 00
	Whitewashing towers	15 56
Contrecœur	Repairing towers	14 90
Crane island	Assistance painting	12 00
	Renewing fence	10 00
Eboulements	Repairing lantern gallery	6 25
Egg island	Repairs, and new iron tank supplied	129 95
Entry island	Repairing foundation	23 00
Etang du nord	Wire ladder	10 00
	Repairing tower and dwelling	115 85
Fame point	Repairing lighthouse	
Father point	Purchasing well and laying pipes	200 00
	New lamps provided	25 00
	Repairing dwelling	15 11
Flower island	Plate glass	25 90
	6 hand barrows	31 10
Forteau	New boiler, and new spare whistle	315 33
Gaspé lightship	Anchor lights	

Station.	Nature.	Cost.
		$ cts.
Grand Entry	Light replaced in position	
Grand river	Timber breastwork constructed	415 00
	Repainting tower	10 00
Greenly island	New boat	57 00
	New lamps; fog alarm machinery	85 68
Green island	Repairing foundations, and painting	62 55
Grondines	Painting	9 00
	Repairing front tower	28 13
Ile à la Bague	Rip-rap work around pier	20 00
	New boat	20 00
	Assistance painting	8 00
Ile à la Pierre	New boat	35 00
Ile aux Raisins	Cutting down trees obstructing light	10 00
Ile de Grâce	Providing new ventilator	7 00
Kamouraska	New canoe	35 00
	Repairing boat; new flagstaff	34 54
Lacolle	Painting	8 00
Lake Memphremagog	Painting all the lights on the lake	72 00
Lavaltrie	Steel plating two piers	99 44
Lake St. Peter—		
Lightship No. 1	New boat	40 00
" 2	"	38 75
	Repairing lantern	59 20
" 3	Steel hull	2,194 13
Lower Traverse lightship	Hull repaired	2,070 00
Maquereau point	Repairing road	175 00
Matane	Repairing dwelling roof	6 00
	New lantern supplied; reflectors renewed	27 35
	Renewing fence around lighthouse	19 05
Métis	Painting tower and dwelling	15 00
	Repairing dwelling, oil store and shed	25 00
	Repairing lamps	15 75
	New stove	13 00
Montée du lac	Renewing gallery and platform	40 90
	New boat and sails	44 00
	Repairing reflectors	9 35
Montmagny	Plate glass	13 00
Newport	Painting	6 85
North of Halfway point	Renewing tops of towers	60 00
	Painting	7 00
Oak point	Repairing and repainting towers	36 00
Paspebiac	Plate glass for lantern	21 25
	Repairing buildings	21 00
Percé	New flagstaff	10 00
	Repainting tower; supplying new ladder	24 37
Perroquets	New plate glass; painting	28 75
Pillars	Painting and repairs	55 35
Plateau	Repairing dwelling	24 65
	New boat	18 00
	6 new brass lamps	29 35
	Repairing reflectors	29 66
Pointe aux Citrouilles	Repairing side steps	15 75
Pointe aux Orignaux	Renewing wharf decking; painting; 6 new lamps	59 90
Pointe aux Trembles	Fencing in lighthouse	50 00
	Repairing and painting	20 00
	Resilvering reflectors	7 88
	Repairing lamps	9 35
Point de Monts	Rebuilding cribwork piers	325 00
	Repairing electric batteries, lamps, &c.; new boat	555 40
	New lamps	

BUOYS AND BEACONS.

Manicouagan shoal.—An automatic whistling buoy on the Courtenay principle has been moored in 34½ fathoms water, ¾ mile off this shoal.

The buoy is a red, iron conical buoy surmounted by a 10-inch whistle, sounded by the action of the waves. It will be put out every spring as early as practicable, and removed every autumn when opportunity offers after the first week in November.

Matane.—On August 19, 1902, an iron bell buoy of United States government pattern was established on the outer end of the shoal off the mouth of Matane river.

The buoy is painted black, is surmounted by a bell rung by the motion of the buoy on the waves, and is moored in 10 fathoms water, one mile north-east of Matane lighthouse.

In consequence of the establishment of this bell buoy, the black can buoy heretofore maintained in that locality has been removed.

Prince shoal.—On August 4, 1902, the middle ground can buoy on Prince shoal, at the entrance to the Saguenay river, was replaced by a gas buoy.

The buoy is of steel, cylindrical, surmounted by a conical slatwork topmark, in which stands the usual Pintsch type lantern. It is painted in red and black horizontal bands, with the words " Prince shoal " in white letters on the buoy. It is moored in 4 fathoms on the south edge of the more westerly of the two patches.

The light is compressed gas on the Pintsch principle, and shows a bright light, occulted at short intervals, at a height of 9 feet above the water. It is visible 4 miles.

On the opening of navigation in 1903 this buoy will be replaced by a combined gas and bell buoy.

Barrett ledge.—The gas and bell buoy marking Barrett ledge has been changed in colour from chequered black and white to red, with the words 'Barrett ledge' in white letters on the body of the buoy, and will hereafter be maintained as a red buoy.

Port Joli shoal.—On August 3, 1902, a gas buoy was established in 5 fathoms water on the channel side of the more easterly of the two $2\frac{3}{4}$ fathom patches lying off Port Joli.

The buoy is of steel, cylindrical, surmounted by a conical slatwork topmark, in which stands the usual Pintsch type lantern. It is painted black, with the words " Port Joli " in white letters on the buoy.

The light is compressed gas on the Pintsch principle, and shows a bright light, occulted at short intervals, at a height of 9 feet above the water. It is visible 4 miles.

Beaujeu bank.—The gas buoy marking the channel over the bar at the west end of this bank, has been changed in colour from white to red and black in horizontal bands, with the words " Beaujeu bank " in white letters on the body of the buoy, and will hereafter be maintained as a middle ground buoy.

The spar buoy which replaces this gas buoy when it is removed for the winter, will hereafter also be changed in colour from white to red and black in horizontal bands.

Grosse isle.—The gas buoy on the western end of Margaret island bank has been changed in colour from yellow to red, with the word 'Quarantine' in yellow letters on the body of the buoy; and the characteristic of the light changed from fixed white to occulting white. Hereafter the buoy will be maintained as a starboard hand buoy, and the light will be occulted at short intervals.

Beaumont reefs.—On August 1, 1902, the black can buoy marking these reefs was replaced by a gas buoy.

The buoy is moored in 5 fathoms water S. 6° W., 7 cables from St. Laurent lighthouse.

The buoy is of steel, cylindrical, surmounted by a conical slatwork topmark, in which stands the usual Pintsch type lantern. It is painted black, with the word 'Beaumont' in white letters on the buoy.

The light is compressed gas on the Pintsch principle, and shows a bright light, occulted at short intervals, at a height of 9 feet above the water. It is visible 4 miles.

Maranda rocks.—A red wooden spar buoy was established on May 31, 1898, off these rocks, and has since been maintained there throughout the seasons of navigation.

The buoy is moored in $3\frac{1}{2}$ fathoms just south of the $2\frac{1}{4}$ fathom sounding marked on the chart, and $\frac{2}{3}$ mile S. 63° E. from Ste. Petronille lighthouse.

Quebec and Platon.—When the buoys marking the ship channel between these points were placed on their stations on the opening of navigation this spring, they were improved by substituting steel buoys for wooden spars wherever previously used, by

increasing the size of existing can buoys and by placing conical buoys on the starboard side of the channel wherever can buoys had previously been used. These buoys will in future be numbered and lettered in white.

Black buoy No. 45 Q, in Cap Santé traverse, has however been discontinued. This has been done at the request of the pilots, who complained that the buoy was too close to the alignment of Ste. Croix range lights and was a menace to ships.

Platon point.—On August 4, 1902, the black can buoy (No. 49 Q) now marking the turn in the ship channel off this point, was replaced by a gas buoy.

The buoy is moored in 5 fathoms water, $\frac{4}{10}$ mile northward of the outer end of Platon wharf.

The buoy is of steel, cylindrical, surmounted by a conical sla work topmark, on which stands the usual Pintsch type lantern. It is painted black, with the word 'Platon' in white letters on the buoy.

The light is compressed gas on the Pintsch principle, and shows a bright light occulted at short intervals, at a height of 9 feet above the water. It is visible 4 miles.

Bécancour.—The day beacon which in line with the spire of Ste. Angèle church shows the middle of the channel between Ile Bigot and Bécancour point has been moved and now stands 15,900 feet N. 64° 15′ E. from Ste. Angèle church.

The beacon is diamond-shaped, of latticework, 10 feet long on each side, supported on a pole 30 feet high. It is painted back with a white border $2\frac{1}{2}$ feet wide around it.

Ile Ste. Thérèse channel.—On the opening of navigation in the spring of 1903, the following changes in the ship channel buoys will be made.

A new black spar buoy, bearing the number 139 M, will be moored in 30 feet water on the east edge of the dredged channel between Ile Ste. Thérèse and Ile à l'Aigle. opposite Ile à l'Aigle front lighthouse.

Black spar buoy No. 147 M will be moved 180 feet south of the position it now occupies, to mark the north-east edge of the dredging near the lower end of Ile aux Vaches traverse.

Black steel can buoy No. 149 M will be moved 130 feet south to mark the angle between the edge of Ile aux Vaches traverse and Pointe aux Trembles channel.

Montreal.—When the buoys placed by the Harbour Commissioners in the port of Montreal were put out on the opening of navigation this year, the following changes in their locations were made:—

Black spar buoy No. 213 M, was moved 720 feet S. 8° W., to a new position, opposite Jacques Cartier pier and opposite the outer end of MacKay pier.

Black spar buoy No. 217 M, was moved 612 feet N. 87° E., to a new position opposite Alexandra pier.

Black spar buoy No. 215 M, was discontinued.

Red spar buoy No. 190 M, Hochelaga wharf, was discontinued.

NOVA SCOTIA LIGHTHOUSE DIVISION.

This division, in charge of Mr. J. Parsons, agent of the Department in this province, comprises 207 lighthouses, exhibiting 218 lights, 1 light vessel, 17 steam fog alarms, 1 explosive fog-alarm station, 32 hand fog-horn stations, 2 fog-bells, 23 automatic whistling buoys, 18 automatic bell-buoys, 128 iron or steel buoys, about 820 spar and other small buoys, 10 day beacons, 17 life saving stations, 5 marine hospitals, 2 humane establishments, and 8 signal stations. The steamer *Newfoundland* chartered till November, 1901, the *Aberdeen* during winter, and the *Lansdowne* and the *Stanley* during spring and summer, were utilized as lighthouse and buoy tenders.

The stations have been inspected by Mr. C. A. Hutchins, superintendent of lights, the boilers and machinery at the fog-alarm stations have been examined by Mr. D. Stevens, inspector of government steamboats, and the life-saving stations and apparatus have mainly been visited and cared for by Capt. Bloomfield Douglas, R.N.R., Naval

Assistant. The coast buoys have been placed and changed by the government ships chiefly under direction of Supt. Hutchins.

The hundreds of harbour buoys are mostly under contract with reliable local men. The wharfs have been inspected by the agent personally.

NEW AIDS TO NAVIGATION.

Wolfville.—A lighthouse at the junction of Mud creek and Cornwallis river was put in operation on March 1, 1902.

The lighthouse stands on the north-west corner of the government wharf. The building is a square wooden tower, with sloping sides, surmounted by a square wooden lantern, and is painted white. It is 22 feet high from its base to the top of the vane on the lantern.

The light is fixed red, elevated 20 feet above high water mark, and should be visible 6 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

The work was done by Mr. D. A. Munroe. His contract price was $450.

Digby pier.—A small wooden tower is in course of construction at the outer end of the government pier at Digby, to replace the pole light hitherto maintained there. The building is being erected by Mr. John Rooney, of Granville ferry, under contract for the sum of $393.

Port Felix.—A lighthouse on the southeastern end of Hog island, Port Felix, in the county of Guysborough, was put in operation on July 1, 1902.

The building consists of a square wooden dwelling with a square wooden lantern rising from the middle of the cottage roof. The whole building, including the lantern, is painted white, and is 37 feet high from its base to the vane on the lantern. The site is 12 feet above and 80 feet northerly from high water mark.

The light is fixed white, is elevated 42 feet above high water mark, and should be visible 8 miles from all points of approach by water. The illuminating apparatus is dioptric of the seventh order.

This work was erected by the department by day's labour, under the supervision of Mr. James A. Hall as foreman of works, and cost $2,517.58.

Louisburg fog alarm.—A first order siren, operated by compressed air, established at the light station on the north side of the entrance to Louisburg harbour, Atlantic coast of Cape Breton, was put in operation on February 18, 1902.

A small white house containing the siren machinery stands on the summit of a small knoll that lies on the edge of the cliff 400 feet S. 60° E. from the lighthouse. The siren is elevated about 50 feet above high water. The engine house, of red brick, with shingled roof painted brown, is situated 35 feet north of the siren house, and is hidden by the knoll from the water.

The siren gives double blasts every two minutes, consisting of a low, followed by a high, note.

Great Bras d'Or.—Two range lights are in course of construction at Duffus point, on the northern side of Boularderie island, entrance to Great Bras d'Or, to guide vessels clear of outlying shoals. The work is being done under contract by Mr. Peter McFarlane.

Bourgeois inlet.—A small wooden tower is being built at the mouth of Bourgeois inlet in the county of Richmond, Cape Breton, to guide vessels into the harbour. The work is being carried on by Mr. Edward Doyle, of Poulamon, under contract, for $415.00

Henry island.—A lighthouse, erected on the highest part of Henry island, at the entrance to Port Hood, will be put in operation about December 1, 1902.

The tower is an octagonal wooden building, with sloping sides, surmounted by a red polygonal iron lantern. The tower is 53 feet high from its base to the vane on the lantern, and its faces are painted alternately white and red. The keeper's dwelling stands 165 feet south from the lighthouse, and is a wooden building painted white.

The light will be a group-revolving white light, having three periods of maximum intensity, with intervals of ten seconds between their points of greatest brilliancy, followed by an interval of forty seconds, during the greater part of which the light will be eclipsed, the apparatus completing a revolution, or phase, in one minute. It is elevated 240 feet above high water and should be visible 22 miles from all points of approach by water. The illuminating apparatus is catoptric.

The work was done under contract by Mr. Jos. McDonald, whose contract price was $3,489.

IMPROVEMENTS AND CHANGES IN EXISTING AIDS.

Kingsport.—The lighthouse at the outer end of the government pier, which was removed temporarily from its site while the pier was being repaired, has been replaced in its former position, and the temporary lantern light discontinued.

Apple river.—The illuminating apparatus in the lighthouse which was catoptric has been changed to dioptric of the seventh order.

Brier island.—On November 1, 1902, the light shown from the lighthouse on the west point of Brier island, on the east side of the Bay of Fundy, in the county of Digby, Nova Scotia, was changed from a fixed white light to a group-revolving catoptric white light, showing four periods of greatest intensity with intervals of twelve seconds between their points of greatest brilliancy, followed by an interval of twenty-four seconds, during the greater part of which the light will be eclipsed, the apparatus completing a revolution, or phase, in one minute.

The light is elevated 92 feet above high water mark, and should be visible 15 miles from all points of approach by water.

Cape Sable.—On November 1, 1902, the light was changed to a third order dioptric white light, giving flashes of about one-third second duration, at intervals of five seconds.

Brooklyn.—In consequence of further damage to the upper portion of the government pier, the fixed green light shown from a lantern on a pole on the pier, was moved about 100 feet shoreward, close to the shore end of the pier.

Canso.—The signal staff from which storm warnings are displayed in Canso harbour, was, in December, 1901, moved from the position in which it stood, 400 feet N. 27° W. from the new Roman Catholic church, to a new site 900 feet S. 39½° E. from the church.

Petitdegrat.—On November 1, 1902, the illuminating apparatus in the lighthouse on Mouse island was changed from catoptric to dioptric of the seventh order.

Jerseyman island.—A dioptric lens of the seventh order has been installed in the lighthouse, replacing the catoptric apparatus heretofore used.

Cape la Ronde.—On December 1, 1902, the fixed white light heretofore shown from the lighthouse on the summit will be discontinued and replaced by a flashing white light.

The new illuminating apparatus is dioptric of the fifth order, and will show single flashes of three-quarter second duration, with intervals of six and three-quarter seconds between the flashes, that is, one flash every seven and a half seconds.

Isle Ouetique.—A dioptric lens of the seventh order has been installed in the lighthouse, replacing the reflector heretofore used; and a hand fog-horn has been furnished to answer the fog signals of vessels.

Hawk islet.—A hand fog-horn has been established at the light station, which will be used in answer to the fog signals of vessels whenever they are heard from the station.

Cranberry head.—The steam fog-horn was out of service from February 19 to September 12, 1902. It is intended to discontinue the operation of this signal when the new siren at Low point is in operation.

MINOR repairs during year ended June 30, 1902.

Station.	Nature of Repairs.
Church point	Shingling and repairs to tower.
Westport	Chimney built in kitchen ; repairs to main building.
Bunker island	New boat supplied.
Cape Fourchu	New glass fitted.
Candlebox	Crib work built.
Peases island	Glass fitted in lantern ; walls shingled and doors fitted to lighthouse.
Fish island	Sheathing inside of dwelling.
Argyle	Re-shingling boathouse and kitchen.
Seal island	Re-shingling oil store and blacksmith shop ; repairs to oil store, tank house, blacksmith shop and boat slip.
Bon Portage	Breakwater lengthened, slip repaired.
Barrington lightship	Overhauling and repairs.
Baccaro	Lantern glass renewed.
Page island, Port Latour	Tower reshingled, drain laid.
Negro harbour range	Re-shingling outer tower.
Cape Roseway	Plastering and re-shingling dwelling ; walls of lighthouse and dwelling repaired ; tramway built.
Gull rock	Repairs to lighthouse.
Little Hope	Crib-work and coal shed built ; repairs.
Fort point	Crib-work and a W.C. built.
Port Medway	Re-shingling lighthouse ; repaired lantern.
Lahave	Repairs to dwelling.
Moser island	Re-shingling and repairs to dwelling.
Hobson island	Repairs to breakwater and oil store.
Quaker island	Door fitted to kitchen.
Peggy point	Repairs to lantern and cistern.
Betty island	Chimney rebuilt.
Terence bay	Shed repaired ; Chance lantern (Anchor lens) supplied.
Chebucto head	Repairs to lantern and slip.
Mauger beach	Slip extended ; repairs to tower ; new lantern erected.
Devil island	Re-shingling boathouse, kitchen and porch of lighthouse.
Jeddore rock	Rocks blasted ; a closet built.
Egg island	Slip repaired ; concrete walk built.
Pope harbour	Boat slip renewed ; protection wall repaired.
Country harbour	Roof of dwelling re-shingled ; sheathed two rooms.
Wedge island	Repairs to dwelling and tower.
Queensport	Sheathing porch.
Sand point	Oil store re-shingled.
Jerseyman island	Cistern built ; re-shingled and repaired oil store and lantern.
Arichat	Repairs to building ; cistern and crib-work built.
Petitdegrat	Repairs to lighthouse and oil store ; roof of kitchen re-shingled.
Isle Ouetique	Repairs to dwelling and tower ; re-shingling dwelling and oil store ; two fences erected.
Hawk island	Road built of crib-work and plank ; storm window fitted.
Mainadieu	Concrete foundation built.
Bird island	Derrick repaired.
Black Rock point	Re-shingling dwelling ; repairs to oil store and breakwater.
Gillis point	Base board fitted in kitchen.
Freestone island	Addition built to breakwater, ballast.
Ingonish island	Repairs to lantern and porch.
Cape North	Re-shingling dwelling, oil store and lighthouse.
St. Paul island—	
S.W. light	Storehouse built ; repairs to porch of keepers dwelling.
Main station	Slip repaired.
N.E. light	Barn and oil store re-shingled ; cistern built ; sheathed room in dwelling.
Cheticamp	Dwelling house and porch re-shingled.
North Canso	Building reshingled ; repairs to building and lantern.

BUOYS AND BEACONS.

Chebogue ledge.—The can buoy was reported adrift on February 4, 1902. It was replaced in position in September, 1902.

Mackerel shoal conical buoy, *Southwest Bull* can buoy and the automatic and bell buoys off *Louisburg* are taken up for the winter, usually in December or January, and replaced on the disappearance of ice the following spring. When they are removed, spar buoys are attached to their moorings.

Little Dover.—The following spar buoys have been established: they will be taken up every winter: In the eastern entrance to Little Dover run:

A red spar buoy on south end of outside breaker.

A red spar buoy on Fanning shoal.

A black spar buoy on Moll shoal

In the south-western entrance:

A black spar buoy on Tomcod shoal, south west from Millstone.

A red spar buoy on Harding point ledge.

A black spar buoy on Millstone ledge.

West shore entrance:

A black spar buoy off Walsh point.

A red spar buoy on Sheep island shoal.

A black spar buoy on shoal north-west of Burnt island.

Janvrin shoal.—A steel conical buoy, painted red, was established on July 1, 1902, off Janvrin shoal, on the western side of Janvrin island, at the southern entrance to the Gut of Canso.

The buoy is moored in about 12 fathoms of water, about $\frac{3}{4}$ mile N. 76° W. from the extremity of Janvrin point, and is to be left on the starboard hand by vessels proceeding northerly into the Gut of Canso, or for Lennox passage.

It will be maintained each year during the season of navigation, being taken up for the winter.

This buoy and the black can buoy on the opposite shore, off Eddy point, define the safe navigable water in this channel between Eddy and Janvrin points.

Point Aconi.—An automatic whistling buoy, on the Courtenay principle, was established on July 1, 1902, in place of the can buoy previously maintained. It will be taken up every winter.

The buoy is a conical buoy, painted black, with Point Aconi in white letters, and is surmounted by a 10-inch whistle which is sounded by the action of the waves. It is moored in about 15 fathoms water, about $1\frac{3}{4}$ miles N. 73° E. from the extremity of Point Aconi.

Gabion Shoal.—The wooden spar buoy heretofore maintained off the north extremity of Gabion shoal has been replaced by a steel can bnoy painted black.

This buoy is maintained each year during the season of navigation, taken up at the close of navigation, about the end of December, and replaced again on the disappearance of ice from the coast in the spring.

St. Paul island beacons.—The beacon which in one with the tidal gauge house on St. Paul island, led clear of Big Dick rock, has been taken down.

The following new beacons have been erected on the island for the guidance of mariners calling at Atlantic cove with supplies and mails, as well as for small schooners and fishing vessels:

Two beacons with white circular tops have been placed on the hill in the bight of the cove above the tidal gauge house, in line bearing S. 35° E Big Dick rock is given a wide berth by the range line of these beacons.

Two diamond-shaped white beacons about 70 yards to the eastward of the Superintendent's residence. In line bearing N. 10° E. they clear the foul ground off the rocky point below the fog alarm, and indicate the best anchorage in 18 fathoms when their alignment intersects that of the two first-mentioned circular-topped beacons above the tidal gauge.

NEW BRUNSWICK LIGHTHOUSE DIVISION.

The New Brunswick division comprises all the lighthouses and other aids to navigation within the boundaries of the province both on the bay of Fundy and on the gulf of St. Lawrence coast. The large buoys maintained by the government on the Nova Scotia coast of the bay of Fundy are attended to by the steamer *Lansdowne*, under the direction of the New Brunswick agent, but are otherwise under the control of the Nova Scotia agent.

This division is under the charge of Mr. F. J. Harding, agent of the department at St. John, N.B.

The lights and other aids to navigation were inspected by Mr. John Kelly, inspector of lights.

There are in this agency 126 lighthouses, 2 lightships and 12 steam fog-alarms under the charge of 99 lightkeepers and engineers.

The method of supplying the lights varied in accordance with locations. The supplies for St. John river, Grand lake and Washademoak lake lights were shipped by direct steamers, and a separate bill of lading furnished for each station.

The supplies for the Miramichi river lights were sent by the lightship *Frederick Gerring* and by regular line of steamers or schooners trading to the different points.

The bay of Fundy lights were supplied by the steamer *Lansdowne*, and those in Chaleur bay were supplied by rail. In all cases the supplies have been delivered in the most convenient and economical way.

NEW AIDS TO NAVIGATION.

Oak point.—The light shown from a lantern on a mast on Oak point, river St. John, has been replaced by a stronger light shown from an inclosed lighthouse tower, built 56 feet outside the site of the old light, on the shore on the east extremity of the point.

The light shown from the new tower is fixed white dioptric, elevated 49 feet above high water mark, and visible 12 miles from all points of approach.

The lighthouse is a square wooden building with sloping sides, painted white, surmounted by a square wooden lantern painted red. The height of the building from its base to the ventilator on the lantern is 48 feet. The old mast and shed have been taken down.

Anderson hollow.—This lighthouse was destroyed by storm on January 12, 1902, and a temporary light was established to replace it. It is shown from a lens lantern hoisted on a mast erected where the lighthouse stood on the outer end of the breakwater.

The light is fixed red, elevated 23 feet above high water mark, and visible 4 miles from all points of approach.

A new lighthouse is in course of construction on shore opposite the outer end of the breakwater.

Cape Tormentine.—Range lights, with a fog-bell, have been established on this pier, to guide the steamer *Stanley* while making winter passages between that point and Prince Edward Island. They are put in operation whenever the *Stanley* is running, and discontinued whenever the *Stanley* is not running.

The front light is fixed red catoptric, shown from a window in the eastern gable of the new freight shed on the railway pier. It is elevated 17 feet above high water mark, and visible 8 miles over an arc of 45° on each side of the line of range. The freight shed is an unpainted wooden building 100 feet long and 20 feet high, standing on the south-east corner of the pier. Over the ridge board of the shed is erected a diamond-shaped day beacon of slatwork, 10 feet high by 8 feet wide, painted white. This beacon, in line with Cape Tormentine Baptist church steeple clears the south end of Jourimain island shoal, in at least 5½ fathoms.

On the east end of a small building, on the south edge of the long portion of the pier, 297 feet inside its north-east corner, is hung a large bell, which is rung by hand as a signal to the *Stanley* in thick weather.

The back range light is shown from the cupola of the iceboat house, which stands on shore at the inner end of the pier, close to its north side, and distant 2,550 feet S. 87° W. from the front light. It is fixed red catoptric, elevated 34 feet above high water mark, and visible 9 miles from all points south of Jourimain island shoal

The building is a square wooden building, painted drab, surmounted by a cupola or lantern rising from the middle of the ridge roof. It is 40 feet high from its base to the ventilator on the lantern.

These aids to navigation were established by Mr. Lord, Agent of the Department at Charlottetown.

Buctouche bar.—A lighthouse on the southern extremity of Buctouche sand bar was put in operation on October 10, 1902.

The lighthouse is a square wooden building, surmounted by a square wooden lantern rising from the middle of the cottage roof. The building and lantern are painted white. The lighthouse is 35 feet high from its base to the ventilator on the lantern, and is located on land 4 feet above high water mark.

The light is fixed white dioptric, elevated 38 feet above high water mark, and visible 11 miles from all points of approach by water.

The work was done by Mr. G. W. Palmer, of Kars, whose contract price for the building was $1,289.

CHANGES AND IMPROVEMENTS IN EXISTING AIDS.

Midjik bluff.—On May 1, 1902, this light was changed from catoptric to dioptric of the seventh order.

Gannet rock.—The periodicity of the fixed and flashing white light at this light-station has been changed, and the light now shows bright 30 seconds, followed by an eclipse of $3\frac{1}{2}$ seconds duration, then a bright flash of 3 seconds duration, followed by an eclipse of $3\frac{2}{3}$ seconds duration, the total period being 40 seconds.

Partridge island.—A new observatory has been erected at this station by Messrs. J. W. Long & Son, at a cost of $318 and a new flag pole was erected by Mr. Alexander Long at a cost of $111.

The fog alarm boilers were repaired by Mr. James O'Donnell, at a cost of $228.34.

The water supply ran low and 35,000 gallons were supplied for fog-alarm boilers at a cost of $371. The water tank was cleaned out and repaired at a cost of $62.30, by Messr. J. W Long & Son. Sundry small repairs cost $27.75.

Zephyr rock lightship was placed on her station in Shediac harbour for the autumn, as usual, on October 3, 1902, and will be maintained thereon until the close of navigation.

Richibucto beach.—The channel through the bar across the entrance to Richibucto harbour having been shifted westwardly by the winter gales or the action of ice, the range lights leading across the bar have been moved 141 feet westwardly from the positions which they occupied in 1901.

The front light mast stands 115 feet back from the water's edge, and the light is elevated 31 feet above high water mark.

The back light mast stands 275 feet S. $8\frac{1}{2}°$ W. from the front one, and is elevated 34 feet above high water mark.

The channel range light masts, carried away in November, 1901, have been replaced, They are fixed white lights, shown from lanterns hoisted on white masts having white sheds at their bases.

The front light mast stands beside the most westerly lobster factory stage on the north shore of the south beach. The mast is 30 feet high, and the light is elevated 27 feet above high water mark.

The back light mast is located at high water mark on the north shore of the south beach, N. 73° W. 466 feet from the front one. The mast is 35 feet high, and the light is elevated 32 feet above high water mark.

The lights shown from all four masts have been strengthened by substituting for the small lanterns previously used, lanterns with dioptric lenses of the seventh order.

Stonehaven.—On September 1, 1902, this light was changed in colour from red to white.

MINOR REPAIRS.

Name of Station.	Nature of Repairs.	Cost.
		$ cts.
Beacon light, St. John	Repairs fog-bell machinery and new bell	235 40
Belloni point	Shelter shed built	100 00
Big Duck island	Fog-alarm boiler retubed and new damper	151 38
Hatfield landing light	Mast and pier repaired	7 50
Cassie cape light	Foundation wall repaired	15 00
Cox point light	Pier repaired—new timber	8 00
Cape Enrage fog-alarm	Boiler retubed, 200 feet new fencing	
Cape Spencer light	Repairs to road	35 00
East head Musquash l'g't.	New copper smoke stacks, $23.79; 6 reflectors resilvered, $120	143 79
Goose lake light	Repairs revolving gear	
Gannet rock light	Revolving machinery nearly all renewed	
Grand Manan fog-alarm	Boilers repaired, $236.04; new tubes, $103.20; road repairs, $9.37	348 61
Grand harbour light	Repairs to dwelling	44 05
Jemseg light	Mast and shed repairs	4 00
Little Shippigan	New shed for boat and buoy storage	70 00
Machias Seal island fog alarm	New chimney and general repairs	
Miscou fog-alarm	Steam pump and operating engine repaired	
Newcastle light	Trees obstructing were cut down	3 00
Neguac gully light	Protection pier rebuilt	110 00
Oak point, St. John river	New boat supplied	10 00
Pokesudie light	New boat supplied, $20; repairs to road, $5	25 00
Pokemouche light	New boat furnished, $40; new brass shade frames, $12	52 00
Preston beach lights	Repairs boat and car, $7; assistance painting, $1.50	8 50
Point Lepreau light	New wire rope for revolving gear, $11.04; lantern repairs, $5; cedar posts and fence, $14.40; lumber, $45.91	76 35
Point Lepreau fog-alarm	Patches on boilers and general repairs	
Pea point light	One reflector resilvered	10 00
Quaco fog alarm	Boiler partially retubed	
Stone haven light	Assistance painting, $5; building new steps, $6	11 00
Swallowtail light	Derrick, tramway, walk and general repairs	
South Tracadie light	New planking and extension to abutment	23 00
Sheldrake island light	Boat repairs and posts under beacon	14 00
Southern Wolf light	New boat purchased, $60; boat hire, 3 years, $10	70 00
Southwest head light	Repairs to highway	50 00
Tracadie light north	Building of sand breaks	50 00

EXPENDITURE ON BUOYS.

Point Pringle	New mooring chain	64 69
Net Rock and Big Duck island	New mooring chain and blacksmith work	208 57
Lurcher automatic	New chain and fittings	183 82
Blonde rock	New chain	454 16
	Repairs to buoy	217 53
Buck rock can	New chain	64 69
Dorchester buoys	New chain	37 29
Bay du Vin buoys	New chain	50 64
Dalhousie buoys	New chain and fittings	56 71

BUOYS AND BEACONS.

St. Andrews.—The upper part of a timberwork beacon, in the form of the fustrum of a square pyramid, which stood on the west entrance to this port, was carried away by a storm on January 12, 1902, and the remaining portion covers about one hour before high water.

Until repairs are made, it is marked by a pole with a keg on top, set upright in the foundation of the block, and standing above high water mark.

Navy island.—On July 12, 1902, the black spar buoy maintained off the southeast end of Navy island, was replaced by an iron can buoy, painted black.

The buoy is moored in 5 fathoms water, 3 cables south of the southeast end of Navy island.

Bell boat.—The St. John Iron Works tender of $2,548 for a new bell boat was accepted, and the firm constructed the boat, which was placed in position off Partridge island by D. G. S. *Lansdowne.* The new boat is giving every satisfaction.

Jourimain island.—A red spar buoy is moored on the tail of Jourimain island shoal, to mark it during winter, in the position occupied by a conical buoy in the open season of navigation.

Huckleberry gully.—A wooden can buoy, painted red, has been established in $1\frac{1}{2}$ fathoms water on the starboard side of the entrance to this gully, at a distance of about $\frac{2}{5}$ mile from shore.

The black buoy about $\frac{1}{2}$ mile east of Huckleberry island, marking the entrance to Huckleberry gully, is no longer maintained.

Vin harbour.—The following two buoys have been established: A red spar buoy, moored in $1\frac{3}{4}$ fathoms water about $\frac{2}{5}$ mile off Mills point. A red spar buoy, moored in $1\frac{3}{4}$ fathoms water about $\frac{1}{2}$ mile off Gardner point.

Miramichi.—To bring the buoyage of Miramichi bay into conformity with the rules for buoyage recommended by the Washington Marine Conference of 1889, and adopted by Canada, the following red buoys marking the best channel across Horseshoe bar have been changed in shape from can to conical:

No. 4. the lower red buoy on the bar, in 3 fathoms;
No. 8, in 3 fathoms;
No. 10, in 4 fathoms; and
No. 12, the upper red buoy on the bar, in 4 fathoms.

Shippigan harbour.—In entering Shippigan harbour, red buoys are on the starboard hand in entering from either end. The change in the colouring of the buoys occurs at the Government wharf, which is situated in Shippigan harbour near the point marked on the charts 'Observation spot.'

Bathurst harbour.—The outer end of the channel over the bar is marked by a red conical buoy, which is now moored to the eastward of the alignment of the range lights. Between this buoy and Caron point the best water is marked by a red cask buoy, a black cask buoy and a red conical buoy. Inside the point the east and west channels in the harbour are marked by cask buoys, and by casks set on clusters of piles, all coloured in conformity with the International regulations for buoyage.

During the year 9 conical buoys 5 feet 6 inches in diameter made by I. Matheson & Co. Ltd., at a cost of $1,305, and 9 conical buoys 7 feet diameter constructed by the Robb Engineering Co., at a cost of $2,196, were furnished to the agency to increase the stock of spare buoys.

PRINCE EDWARD ISLAND LIGHTHOUSE DIVISION.

This division which embraces the whole province, is under the charge of Mr. Artemas Lord, agent of the department at Charlottetown, who also acts as inspector of lights. The general routine of the office work has been performed by the agent, assisted by Mr. Laurence W. Watson, as clerk, and Mr. H. W. Mutch, as messenger. The work of building new light houses and superintending more extensive repairs at existing stations has been done under Mr. M. Walsh, as foreman of works. Under the agent's instructions, Mr. Walsh is also warehouseman for the lighthouse stores in Charlottetown.

There are in the division 66 lights at 39 stations, and one fog-horn, under the charge of 45 keepers. There are three automatic whistling buoys and one bell-buoy. The majority of lights are situated on headlands and serve the general purposes of navigation, the remainder being harbour lights intended particularly for the benefit of fisher-

men. There are thirty harbours buoyed under the system of three year contracts, and seven in which buoys are maintained by the department under the local harbour masters.

All the stations on the island were inspected by the agent on the annual supply trip last summer, which was made on the D.G.S. *Brant*.

NEW AIDS.

Wood island harbour.—Range lights were established and put in operation on September 6,1902 to lead into Wood island harbour.

The front range tower stands on the breakwater on the south side of the east entrance to the harbour, 50 feet from its outer end. It is a square wooden building, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The height of the tower from its base to the top of the ventilator on the lantern is 19 feet.

The light is fixed red, elevated 18 feet above high water mark, and is visible 6 miles from all points of approach by water. The illuminating apparatus is a pressed glass lens.

The back range tower stands on the gravel beach, 700 feet N. 85° W. from the front tower. It is a square wooden building with sloping sides, surmounted by a square wooden lantern, the whole painted white. The height of the tower is 33 feet from its base to the top of the ventilator on the lantern.

The light is fixed red catoptric, elevated 33 feet above high water mark, and is visible 7 miles in the line of range.

These buildings were erected by the agent by day labour, under the supervision of Mr. M. Walsh, and cost $204.92.

CHANGES AND IMPROVEMENTS IN AIDS.

Murray harbour.—Arrangements have been made to reduce the height of the front range tower on Beach point 10 feet in November, 1902, in order that the back light may be more easily distinguished. The front tower will then be 20 feet high, and the light will be elevated 23 feet above high water mark.

Miminegash.—The red sector shown from the front range lighthouse on the outer end of the south breakwater now shows over an arc of 78½° between the bearings of N. 79° E. and S. 22½° E. Between the southern edge of this sector and the land to the southwestward of the lighthouse no light shows. The white sector now shows between the bearings of S. 22½° E. round through south to S. 41° W. over an arc of 63½°, which includes the line of range.

The illuminating apparatus consists of a compressed glass lens reinforced by silvered reflectors.

The illuminated sector of the back lights has been increased so that it now shows from N. 79° E. round through east and south to about S. 41° W., or until cut off by the high land to the northeastward of the lighthouse.

This change was made to enable small vessels to find the entrance from the southward to anchorage behind Miminegash reef.

Sea Cow head.—In April, 1902, a new cast iron 10½ foot lantern replaced the worn out and inferior lantern formerly in use. When the change was made the tower was put in thorough repair, reshingled and a new platform deck built.

Minor Repairs Prince Edward Island.

Place.	Nature.	Cost.
		$ cts.
Cape Bear	Fence reset and drain repaired	
Pannure island	Fence repaired, new boat and oars	15 00
Cardigan river	Fence repaired	16 80
Annandale	Protection work	20 00
New London	Filling in work	7 20
Miminegash	Repairs to tower	
Cape Egmont	New wire fence built	
Indian point	Verandah repaired	
Sea Cow head	Tower repaired	
Blockhouse point	Fence repaired	
Brighton beach	Front light fenced in, towers repaired	

BUOYS AND BEACONS.

Miminegash reef.—The southern channel inside the reef is marked by three spar buoys, painted in black and white stripes, and moored as midchannel buoys.

Wood island harbour.—To mark the best water in the new channel created by the extension of the south breakwater changing the direction of the outgoing current, a spar buoy, painted in black and white bands, has been placed 600 feet S. 79° E. from the front range lighthouse, in 9 feet water at low tide.

A day beacon, painted white, consisting of a diamond-shaped topmark on a spar 20 feet high, has been established on the western end of the western island of the two Wood islands, 2,500 feet N. 67½° W. from the main lighthouse.

Spithead.—The black can buoy maintained on the west side of the entrance to Charlottetown harbour has been moored in five fathoms water, 1¾ cables S. 51° E. from its former position.

Panmure shoal.—The wooden can buoy off this shoal, locally known as Wheeler bar buoy, has been replaced by a spar buoy painted black,

The buoy is moored in 8 fathoms water, and bears N. 26° W., distant 12½ cables from Panmure head lighthouse.

BRITISH COLUMBIA LIGHTHOUSE DIVISION.

This division comprises all Canadian waters on the Pacific coast and the inland navigation systems of British Columbia, and is under the charge of Captain James Gaudin, agent of the department at Victoria, who also acts as inspector of lights.

There are in this province thirty-two light-stations, at six of which are steam fog-alarms, and at six others bells are rung by machinery. There are three beacon lights in Victoria harbour, and one similar light in Nanaimo harbour.

The lights are in charge of thirty-four light keepers, some of whom supply assistance out of the salaries allowed.

The lights are supplied by the Dominion steamer *Quadra*, Capt. J. T. Walbran, master, and the fog-alarm machinery at the several stations was periodically inspected by the engineers of the *Quadra*.

NEW AIDS TO NAVIGATION.

North Vancouver.—A magnetic range has been established by the government of Canada on Mahon avenue, in the townsite of North Vancouver, to correct the compasses of vessels when lying in the harbour of Vancouver.

The range consists of two posts, the northern or higher post 22 feet above the ground, and the southern or lower post 38 feet above the ground, each post painted red and white in alternate horizontal bands and surmounted by a triangle painted white with a black centre line. The posts are 1,000 feet apart and bear when in line N. 5° 37′ E.

Portier pass.—Range light buildings were put in operation on November 15, 1902.

The front tower stands on Race point, 50 feet back from the water's edge, on bare rock, 6 feet above high water mark.

The tower is a square, wooden building, surmounted by an octagonal wooden lantern, the whole painted white. The height of the building from its base to the ventilator on the lantern is 24 feet.

The light is fixed white catoptric, elevated 23 feet above high water mark, and visible 9 miles in the line of range.

The back range tower stands on the first point southwestward from Race point, 125 feet back from the water's edge, on bare rock, 12 feet above high water mark, and bears S. 5° E. 1,200 feet from the front tower. The tower is a wooden building, square in plan, with sloping sides, surmounted by a square wooden lantern, the whole painted white. The height of the tower from its base to the ventilator on the lantern is 31 feet.

The light is fixed white dioptric, elevated 36 feet above high water mark, and is visible 11 miles from all points of approach by water.

These lighthouses were erected by day's labour under the supervision of Mr. Thomas Tubman.

CHANGES AND IMPROVEMENTS AT EXISTING STATIONS.

Brockton point.—A lighthouse with dwelling attached has been built S. 5° W. 85 feet distant from the place at which the light was previously shown. It is a wooden building, painted brown and yellow with red roof. The light is shown from a wooden lantern on the first floor in front of the building, The height of the building is 29 feet. As the building is conspicuous it was made somewhat ornate to suit its surroundings.

The light is fixed white dioptric, and shows from all points of approach, except over Burnaby shoal, which is covered by a red sector. It is elevated 42 feet above high water mark and should be visible 8 miles.

The building was erected by Messrs Baynes & Horrie, of Vancouver. Their contract price was $1,199.

The fog-bell tower at this station has been moved, and now stands at high water mark on the north extreme of the point, N. 8° E, distant 120 feet, from the new lighthouse.

Walker rock.—The provisional stake light maintained on the beacon on this rock was replaced by a 31-day Wigham lamp, on December 11, 1900.

The light is fixed white, elevated 15 feet above high water mark, and is visible 8 miles from all points of approach. The illuminating apparatus consists of a pressed glass lens.

The light is shown from the summit of a small square wooden tower painted white, erected on the summit of the stone beacon. The tower is 7 feet high.

MINOR REPAIRS.

Station.	Nature of Work.	Cost.
		$ cts.
Cape Beale	Repairing wood work to buildings	182 00
Carmanah point	Repairs	287 00
	New boat supplied	100 00
Race rocks	Repairs	108 00
Fisgard	Repairing roof	46 00
Victoria harbour	Repairing beacon lights	66 00
Fiddle reef	Repairs	52 00
Discovery island	Repairing reservoir	12 00
Bare point	Repairs	60 00
Saturna island	"	35 00
Active pass	Stone reservoir	845 00
Entrance island	Repairing boathouse	112 00
Prospect point	Repairs	38 00
Point Atkinson	Repairs to station	457 00
Yellow island	Repairs to building	62 00
Sisters	Boat house annex	45 00
Dryad point	New boat supplied	54 00
Ivory island	Improving trail	30 00
Lawyer islands	Cutting down trees obstructing range	100 00

BUOYS AND BEACONS.

Clayoquot sound.—Three buoys have been established in Clayoquot sound, as follows :—

(*a.*) A steel can buoy, painted black, with T. C. (Templar channel) in white letters on it, in 24 feet water on the southeast side of the rock in Templar channel.

From the buoy the north tangent of the 30-feet islet bears N. 61° E., distant 4½ cables, and the southeast tangent of Village island, S. 20° E.

(*b.*) The black platform buoy heretofore marking the extreme of the spit northward of Stubbs island has been moved to the northeastward into deeper water, and is now moored in 17 feet water.

From the buoy the extreme of Stockham and Dawley's wharf on the island to the northward bears N. 9° W., distant 2 cables, and the south tangent of Meares island N. 77° W.

(*c.*) A black platform buoy in 21 feet water off the southwest shore of Meares island, to mark the turn from Deception channel to Village channel.

From the buoy the west tangent of Stubbs island bears S. 2° W. distant 8¾ cables, and the extreme of Stockham and Dawley's wharf, N. 69° E.

Browning passage.—The red spar buoy shown as marking the rock situated northward of the islets at the eastern end of Browning passage, is no longer maintained, the passage southward of the wooded islets, which is clear of danger, being the channel now used.

The rock found this spring at the western end of this passage, was on September 10, 1902, marked by a spar buoy.

The buoy is painted in red and black horizontal bands, and is moored in 2¾ fathoms between the two shoalest points of the rock.

Entrance point.—A steel can buoy, painted red and black in horizontal bands, has been moored in 15 feet water on Kelp reef, Stuart channel, in place of the spar buoy heretofore marking that danger.

Grappler reef.—The steel can buoy marking this reef between Admiral and Kuper islands has been changed in colour from red to black.

Sidney spit.—The wooden day beacon, which was blown down by a gale on October 27, 1900, has been re-erected in its former position. The beacon is painted white and black, the upper part white and the lower part black.

Sidney.—The two red spar buoys that formerly marked the outer edge of the shoal ground off Sidney, discontinued in 1901, have been re-established in their old positions.

The more southerly buoy is on the southeastern shoulder of the shoal, south of the settlement.

The more northerly buoy is on the northeastern shoulder of the same shoal.

Victoria rock.—The rock in Tricomali channel on which the steamer *Victoria* struck was marked by affixing white crosses to two trees on the adjacent shore of Admiral island, which in one lead over it, and by mooring on it a steel can buoy painted in red and black bands.

Portier pass.—Two pairs of day beacons have been established on the north end of Galiano island, to mark the position of Romulus rock.

The front beacon of the northern pair stands on the extremity of Virago point. It is 30 feet high, and 37 feet above high water mark.

The back beacon of this pair stands on the east shore of the bay between Virago point and Race point, and is distant 610 feet N. 27° E. from the front beacon. It is 32 feet high, and 56 feet above high water mark.

The front beacon of the more southerly pair stands on the extremity of the point next south of Virago point, and is distant from the front beacon of the northern pair 1,575 feet, S. 26° E. It is 30 feet high, and 53 feet above high water mark.

The back beacon of this pair stands 204 feet S. 85° E. from the front one. It is 45 feet high, and 69 feet above high water mark.

Romulus rock.—The black spar buoy established to mark this rock has disappeared, and, owing to the difficulty of keeping a buoy on this danger, will not be replaced.

Sturgeon bank.—The black pile beacon marking the outer edge of this bank, which disappeared in October, 1900, has been re-erected in its former position; and the can buoy temporarily marking the site, has been withdrawn.

Parthia shoal.—The day marks erected on Brockton point in 1897, to clear Parthia shoal, First narrows, entrance to Vancouver harbour, have been removed, as the new lighthouse, built to replace the pole light on Brockton point, interrupted the range; and it is considered that the spar buoy off the shoal on the south side of the narrows and the day marks on the south shore are sufficient guides to clear the shoal.

Baynes sound.—Three spar buoys painted red with movable topmarks have been moored in Baynes sound to mark the prize firing base line used by the Royal Navy.

The south easternmost buoy bears S. 65° W. $7\frac{2}{3}$ cables from the highest tree in the clump on Sandy island; the middle buoy bears S. 85° W. $10\frac{1}{3}$ cables from this tree; and the northwestern buoy bears N. 85° W. $13\frac{2}{3}$ cables from the same tree.

Walbran rock beacon.—A triangular wooden beacon, 15 feet high and 10 feet on the base, painted white, has been erected on White point, Lama passage.

The beacon in one with the extreme of Kaiete point, the southern point of entrance to Lama passage, N. 64 W., leads over Walbran rock.

Wellington rock leading mark.—White boards, nailed on a tree on the western shore of Ormidale harbour, serve as a leading mark for the rock in Seaforth channel on which the S.S. *Wellington* struck. This mark in one with the west tangent of Nevay island leads over the new danger.

Regatta rock beacon.—A cone-shaped wooden beacon surmounted by a latticework ball, the whole painted white, and showing 25 feet above high water, has been erected on the southernmost Regatta rock, Seaforth channel.

White stone beacon.—A square wooden beacon surmounted by a latticework drum, the whole painted white and showing 40 feet above high water, has been erected on White Stone, Seaforth channel.

The whole respectfully submitted.

WM. P. ANDERSON,
General Superintendent of Lighthouses.

December 11, 1902.

[INCLOSURE B.]

List of Buoys Maintained by the Department of Marine and Fisheries in Canadian Waters in 1902.

ONTARIO.

	No. of buoys.
Amherstburg, including Bois Blanc	44
Bay of Quinte (three contracts)	32
Bears Rump	1
Burlington bay	1
Byng inlet	7
Collingwood	14
Clapperton island	4
Cornwall to Prescott	69
" " gas-buoys	7
Fiddler's Elbow	1
Gananoque narrows	5
Georgian bay	12
Goderich	2
Green shoal	1
Grecian shoal	1
Grosse point	6
Hawkesbury	16
Kaministiquia	19
Kingston	19
Lake Nipissing	32
Lake of the Woods, including bell-buoy	145
Lake Simcoe	15
Lake Superior, including bell-buoy	7
Little Current	8
Lone rock bell-buoy	1
Midland	7
Murray canal and Presqu'ile bay	23
Napanee	14
North Sister rock	4
Niagara bell-buoy	1
Orillia	9
Parry sound	26
" gas buoys	3
Pembroke	20
Point au Baril, 15 beacons and	4
Penetanguishene	10
Point Pelee, gas buoy	1
Port Arthur	1
Port Rowan	10
Rainy river, 11 pairs beacons and	14
Red Horse rock	1
River Thames	7
Rondeau	6
St. Joseph channel	4
Sault Ste. Marie	20
" " canal approaches	25
Seine river and Grassy lake, 30 piles and 10 beacons	
South Baymouth	4
Stokes bay	6
Surprise shoal, bell-buoy	1
Tin Cap shoal	2
Trenton	11
Wanbashene	32

QUEBEC.

Amherst harbour	8
Bersimis and Outard bay	3
Bonaventure	1
Cap Chat	1
Cape cove	1
Carleton point	1
Chicoutimi	13
Cock point	1
Echouerie rock	1
Fox river	1
Gaspé	5
Grand Entry	5
House harbour, Magdalen islands	6
Lachine and Lake St. Louis	27
" " " Gas buoys	6
Lake St. Francis district	43
" " gas buoys	12
Little river west	1
Matane	4
New Richmond	3
North channel, Island of Orleans	10
Paspebiac	1
Percé	2
Richelieu rapids, bushes	
Richelieu river (two contracts)	54
Rivière des Prairies	10
Ste. Adelaide de Pabos	1
Ste. Anne river	1
Ste. Placide, stakes	40 or 50
St Thomas	8
St. Lawrence river between Montreal and Quebec	258
Maintained by Agency, gas buoys	12
" " smaller buoys	50

NOVA SCOTIA.

Advocate harbour	6
Apple river	8
Arichat	16
Argyle river and sound	10
Avon river	6
Barrington	39
Bear river	12
Beaver harbour	2
Blandford	5
Bridgewater	10
Canning or Habitant river (6 dolphins)	
Canso and St. Andrews passage	28
Cape Negro or North-east harbour	14
Cariboo	6
Cheticamp	12
Chezzetcook and Petpiswick	6
Christmas island and Barra strait	11
Clarks cove, West bay	3
Clarks harbour	17
Cockerwit pass and Woods harbour	15
Cooks cove, Toby cove	4
Crow harbour	3
D'Escousse	8
Digby and Annapolis	7
Digby and Annapolis winter service	5
Dipper harbour	3
Dover	4
East bay, Bras d'Or	2
Gold river and Chester basin	8
Great Bras d'Or	7

SESSIONAL PAPER No. 21

List of Buoys maintained by the Department of Marine and Fisheries, &c.—*Continued.*

NOVA SCOTIA—*Concluded.*

	No. of buoys.
Gillis point, Boulaceet	1
Guysborough	3
Hay cove	8
Harbour au Bouche	(6 stakes) 4
Ingonish, South bay	8
Isaacs harbour	11
Janvrin	4
Jeddore	9
Judique	1
Ketch Harbour	6
L'Ardoise	2
Lahave	8
Lennox passage	17
Little narrows	10
Little Dover	9
Little Bras d'Or	2
Liverpool	3
Lockeport	6
Lunenburg	9
Lunenburg, black cove	9
Lunenburg, Middle south	16
Louisburg	7
Mabou	12
Mahone bay and Chester	20
Main-à-Dieu	6
Margaree harbour	9
Martin brook	6
Merigomish	6
Marie Joseph	5
Montsellier	10
McKinnon harbour	4
Musquodoboit	7
Northport	12
North Sydney	5
Parrsboro	6
Petitdegrat	10
Pictou	6
Popes harbour	3
Port Felix	7
Port Hood	7
Port Le Tour	12
Port Medway	9
Port Morien	2
Port Hebert	12
Pubnico	18
Pugwash	9
Prospect, Lower	10
River John	3
Roseway	3
St. Anns	3
St. Mary river, two contracts	26
St. Peter bay	16
St. Peters inlet	10
Sambro	11
Shag harbour	12
Sheet harbour	9
Shelburne	10
Ship harbour	9
Ship rock	1
Shulee	8
Smith island	1
Sydney	2
Tangier	4
Tatamagouche	18
Terrence bay	3
Tor bay	19
Three Fathom harbour	5
Tidnish	5
Tusket	(3 spindles) 23
Upper Prospect	4
Wallace	11
West bay	3
West Dublin and Crooked channel	13
Westport	3
Weymouth	13
Whitehead	9
Yarmouth	50
Maintained by Agency	(whistling-buoys) 23
" "	(bell-buoys) 18
" "	(conical and can-buoys) 128

NEW BRUNSWICK.

Bathurst	26
Bay Verte	36
Bay du Vin	3
Beaver and Blacks harbour	9
Black brook, Miramichi river	3
Black Land gully	12
Buctouche	16
Buctouche river, 200 bushes	
Campobello, 1 spindle	9
Caraquet	21
Cocagne, stakes, 30	11
Dalhousie and Restigouche	10
Digdequash	5
Dipper harbour	3
Dorchester	3
Grande anse	4
Grand lake and Salmon river	73
Grand Manan	30
Great Shemogue	7
Harvey	7
Lepreau	3
Letite and Back bay, 1 spindle	21
Little Shemogue	6
Little Shippigan	12
Magaguadavic	13
Maquapit and French lakes	24
Marsh point	1
Miramichi	18
Musquash	7
Neguac	19
Neil harbour	1
Napan river, 24 stakes	2
Northwest arm, Miramichi	6
Oak bay and Restigouche	10
Oromocto	7
Petit Rocher	1
Pisarinco	2
Pokemouche	5
Quaco	3
Richibucto and Albion	28
Richibucto, Kingston and Browns yard	30
Shediac	11
Shippigan	19
St. Andrews	15
St. Croix ledge	11
St. John river, 179 stakes	68
Tabusintac	17
Tracadie	19
Tynemouth creek	3
Washademoak, 147 stakes	2
West Isles, 4 spindles	23
Maintained by Agency, signal buoys	16
" " can and conical buoys	15

LIST of Buoys maintained by the Department of Marine and Fisheries, &c.—*Concluded.*

PRINCE EDWARD ISLAND.

	No. of buoys.
Bay Fortune	3
Beach point	3
Bedeque	11
Brae harbour	5
Cardigan, Lower	5
" Upper	11
Cascumpeque	14
Charlottetown, 20 stakes	22
Cove head	2
Crapaud	6
East river (Hillsboro')	17
Egmont bay	10
Egmont bay, south, 8 stakes and	2
Georgetown	13
Goose harbour	2
Grand river, 1 beacon	12
Grand river, lot 14	8
Indian rocks	1
Malpeque	16
Miminegash	6

	No. of buoys.
Little channel	3
Montague	6
Murray harbour	33
New London	11
Orwell and Vernon river	6
Pinette	5
Port Hill	9
Pownal	7
Rollo bay	3
Rustico	5
Savage harbour	2
Souris	4
St. Peters harbour	8
Summerside	11
Tracadie	3
West point	1
Wood island	1
Maintained by Agency, signal buoys	3
" " can and conical	3

BRITISH COLUMBIA.

Alford reef	1 can.
Benmohr rock	1 cage.
Burnaby reef	1 spar.
Celia reef	1 conical.
Clayoquet	1 can.
"	2 platform.
Clark rock	1 conical.
Colburne passage	2 cage.
Cortez island	1 can.
Dall patch	1 cage.
Departure bay	2 "
Dorcas rock	1 spar.
Entrance point	1 can.
Esquimalt harbour	2 cage.
First narrows B. I.	1 spar.
False narrows	2 "
False reef	1 can.
Gossip reef	1 "
Governor rock	1 cage.
Grappler reef	1 can.
Hodgson reef	1 "
Horda rock	2 "
Horsewell reef	1 conical.
Indian reef	1 can.
Johnson reef	1 "
Kelp bar	1 spar.
Ledge point	1 "

Lighthouse island	1 conical.
Metlacatla	2 cage.
Miami reef	1 can.
Nanaimo harbour	9 cage.
" "	2 spar.
One Fathom patch	1 can.
Paterson rock	1 spar.
Point Grey	1 can with cage.
Portier pass	1 " "
" "	1 spar.
Reef point	2 conical.
Rosedale reef	1 can.
Rosenfelt reef	1 conical.
Sand heads	12 "
" "	1 bell.
Sidney spit E.	1 can.
" " W.	1 "
" wharf	2 spar.
Three Fathom patch	1 can.
Tugwell point	1 spar.
Ucluelet	1 "
Victoria harbour	2 cage.
Victoria rock	1 can.
Village point	1 spar.
Welcome pass	1 "
Whale rock	1 "
Kootenay lake	11 platform.

BEACONS.

	No. of beacons.
Atkins reef	1
Base flat	1
Brotchy ledge	1
Canoe rock	1
Danger reef	1
Enterprise reef	1
False narrows	2
First narrows, Burrard Inlet	3
" " " marking water pipe line	2
Gibson landing	1
Grassy point	1
Goose spit	1
Gabriola reef	1

	No. of beacons.
Kelp reef bar	1
Kelp reef	1
Lewis rock	1
Maple spit	1
Nanaimo harbour	2
North reef	1
Sidney spit	1
Shark spit	1
Shute reef	1
Sand heads	l'thouse B 1
Union spit	1
White islet	1
Walker rock	1
Zero rock	1

(INCLOSURE C.)

OTTAWA, November 14, 1902.

I have the honour to submit the following Report on the progress of this Survey. The principal tidal stations have been maintained in operation, and some progress has been made in the reduction of the results, as far means have permitted. The two principal tidal stations which command the two entrances to the Gulf of St. Lawrence have been put in thorough repair this season. The station at St. Paul Island in Cabot Strait, commands the main entrance by which the tides enter the Gulf from the ocean ; and its advantage as a port of reference for an important part of the Gulf area, has come out in a clearer light than ever, from the comparative observations secured in 1901.

An important step in advance is being made, in the information supplied to aid navigation on the St. Lawrence route. A part of the tidal record from Father Point is being submitted to harmonic analysis, which will enable tide tables to be calculated directly for that locality. The advantage of this step has become apparent from the tidal observations of 1900 on the Lower St. Lawrence ; as they showed that both tide and current in the open estuary below the Traverse, could better be referred to Father Point than to Quebec. So far, the Father Point tide tables have been calculated indirectly from Quebec, by means of the double series of variable differences described in last Report. This elaborate method was devised to save the expense of analysis at an additional station. But it has now been ascertained that the complicated relation between the two places, is chiefly due to the river influence at the upper end of the run of the tide near Quebec ; while the tide in the open estuary itself is very regular. Hence the tide tables calculated from the analysis, in conjunction with the other data which have been secured, will enable the turn of the strong tidal currents of the estuary to be readily and accurately known from the tide tables.

On the Pacific coast, good progress has been made, both in the improvement of the tide tables through the analysis of further tidal record from the principal stations, and also in the establishment of additional tidal stations, to extend the information available.

In the present Report, all the information yet obtained is summarized, with regard to the tide and current in Northumberland Strait ; and its relation to Cabot Strait where the Gulf of St. Lawrence opens to the ocean. The levels of datum planes, heights of extreme tides, and the effects of wind disturbance, have also been carefully and fully worked out. These are of primary importance with relation to works of construction in the harbours of the strait, as well as for uniform reference levels in any future observations.

Repeated endeavors have been made to ascertain the relation between the various datum planes in use in our cities and towns. There are often two or three of these, out of accord with each other ; and further, there is usually uncertainty or actual discrepancy between the various marks by which these planes are defined. In these circumstances, the method which this Survey has adopted from the outset is to refer all the tide levels obtained, to some one satisfactory bench-mark in each port. Eventually, as the observations are continued, the value of Mean Sea Level, extreme tide levels, and other factors of importance, are determined with reference to this bench-mark. Such factors are of the highest value in city drainage works and harbour improvements. In certain rare instances, bench-marks have been established by the Admiralty, which define the low-water datum of the charts. These are always taken advantage of, where they exist. When the height of the tide is referred to this datum level, it shows the depth available in addition to the chart soundings. In the present Report, the result is given of the endeavour to correlate the various datum planes in use at Halifax ; and to redetermine the low-water datum at Victoria, B.C. The relation between the tide levels and the Yarmouth town datum, is also given.

Five summer tidal stations were erected this season with the object of obtaining tidal data as a basis for the investigation of the current at the entrance to the Bay of Fundy, and in the bays on the south coast of Newfoundland.

A considerable amount of tabulation from the tidal record already secured, has been done during the year, and submitted to analysis as the means to do so have permitted. This will extend the basis from which the tide tables are calculated, which will be of permanent benefit in improving their accuracy in all future years. In the office work of this Survey, and in the erection of the summer tidal stations, I have had the assistance of Mr. R. Angus and Mr. S. C. Hayden.

The total expenditure on this Survey during the fiscal year from June 30, 1901, to June 30, 1902, was $8,951.08 in which a supplementary estimate of $1,500 is included which was expended upon material for the heavy repairs at the permanent tidal stations.

REDUCTION AND TABULATION OF TIDAL RECORD.

In order to utilize the tidal record for the calculation of tide tables by the modern method of harmonic analysis, it is necessary that it should be tabulated in hourly ordinates, which give the height of the tide at each hour throughout the year. With this object in view, it is of primary importance to secure an uninterrupted record, day and night, during the course of the year. Every endeavour in the way of foresight and vigilance, is made to ensure this. The number of hourly ordinates throughout the course of a year is 8,760; and these must be reduced to a uniform datum and freed from time errors. The tabulation of this character which has been submitted to analysis during the twelve-months since last report, is as follows:

Halifax.—Three years, from December 14, 1896, to January 15, 1900, extending the basis from which these tides tables are calculated from one to four years of recent observations. This, together with four years of old observations, obtained between 1851 and 1861, now gives a total of eight years of observations for these tide tables; and this benefits all the ports on the Atlantic coast of Nova Scotia, that depend upon them.

St. Paul Island.—Two years, from May 20, 1899, to May 31, 1901; which benefits the tide tables for the ports in Northumberland Strait, and the south-west side of the Gulf of St. Lawrence, which depend directly or indirectly on St. Paul Island.

Father Point.—Three years from January 25, 1897, to February 25, 1900. This will be of great benefit to the St. Lawrence route; as it has now been ascertained that the best results are secured by referring to this station, the tides and currents throughout the open estuary.

In addition to the above, the following tidal record from the Pacific coast has been tabulated ready for analysis; which will be made as soon as the finances of the Survey will admit of it.

Sand Heads, Strait of Georgia.—Three additional years, from November 1, 1898, to November 24, 1900; and from January 16, 1901, to January 27, 1902. This will serve to improve the accuracy of the tide tables at Vancouver and other ports throughout the Strait of Georgia, which are dependent upon this as a principal station.

PUBLICATION OF TIDE TABLES, AND IMPROVEMENTS IN THEIR ACCURACY.

The publications of this Survey during the past year, continue to be reviewed in British and foreign periodicals as in former years, which is of service in making them widely known. The requests received for tide tables, and for other information, is continually on the increase.

Tide Tables for British Columbia.—These comprise complete tide tables for Victoria, B.C., and for Sand Heads in the Strait of Georgia, a locality centrally situated in that strait, and well suited as a reference station for the ports around it. Tidal differences for Vancouver, New Westminster, Nanaimo and Baynes Sound are given with these tables; as well as the turn of the current in First Narrows, Burrard Inlet. They have met with so much appreciation that the edition printed has been increased from 500 to 800 copies, to meet the demand for them.

It is a real service to mariners that accurate tide tables are available since these were first published in 1901 ; as the information for British Columbian waters given in the United States tide tables, was far from reliable. This was unavoidable in the circumstances ; the tide itself being of a different type, as explained in a former report. Regarding the accuracy of the present tables, Mr. F. N. Denison, who is continuing the tidal observations at Victoria, writes : "Your Victoria tidal predictions are almost perfect, as proved by plotting them upon the actual records, and are greatly admired and appreciated by those who have seen the comparison." The captain of the steamer *Otter*, of the Canadian Pacific Navigation Co., also writes at the end of January, 1902 : "During 1901, I often used the tables for that year, and am greatly pleased to say that I found the times of high and low water given in the tables, wonderfully correct. I see the tables for 1902 are a distinct advance on the tables for 1901, as constants are given for Nanaimo, Vancouver and Baynes Sound, ports that I frequently visit ; and I find that in the short time I have used this year's tables, they are as exact for the above ports as the tables for 1901 were for Victoria and the Sand Heads."

The tide tables have been reprinted one month at a time, by the *Times* and the *Colonist* of Victoria. The new information now issued with them, is mentioned further on in this report, where the further results now secured are explained.

Quebec, Father Point, Halifax and St. John, N.B.—In this set, the accuracy of the tide tables for Quebec has been further improved by extending the basis from which they are calculated for 1903, from four to six years of observation. This improvement is an important one, in view of the full information now issued with these, for the whole of the tidal portion of the St. Lawrence, from Three Rivers to Gaspé. The tide tables for Father Point, were published for the first time in 1902 ; and those for 1903 are also deduced from the Quebec tide tables by the method described in last report. Hereafter these tables will be calculated directly from the astronomical elements determined by analysis, as already explained.

In this set of tables, tidal differences are also given for the whole of the Bay of Fundy ; and for the Atlantic coast of Nova Scotia.

These tide tables were again supplied to the leading Canadian and British almanacs, willing to publish them in whole or in part. An addition of 800 copies, reprinted from Greenwood's Almanac, was found insufficient to meet the increased demand for them : and accordingly for 1903, the quantity has been increased to 1,000. The various newspapers have also done something in the way of re-publishing these tables, or in giving the time of high water daily, much in the same way as in former years.

St. Croix Bar.—Tide tables were again computed for this locality, which has been the shallowest point in the St. Lawrence above Quebec. These tables are published in company with the tide tables for Quebec, by the Montreal Harbour Commissioners, in the publication they prepare annually for the information of the St. Lawrence pilots. The new information regarding the tides and currents of the Lower St. Lawrence was also supplied in a condensed form for this publication. The deepening of the ship channel through this bar being now completed, the next shallowest point is at St. Augustin bar, for which tidal data are also computed.

Charlottetown, Pictou and St. Paul Island.—These tide tables have the same character as last year, and they again include the whole twelve months. A distinct improvement in the accuracy of these tables was obtained from the observations taken in Northumberland Strait during the season of 1901. The tidal relations of Charlottetown to Pictou, and of Pictou to St. Paul Island, have thus been better determined ; and also the tabulation of the tidal record from St. Paul Island itself, which was submitted to analysis, is of direct benefit to this set of tables, as they are dependent upon it as a principal station.

The time of high water for Charlottetown, taken from these tables, has been published a month at a time by the *Patriot* and the *Examiner*. The tide tables for Pictou have also been published in full by the *Advocate* one month at a time, accompanied by the tidal differences for the dependent places in Northumberland strait.

Summerside, P.E.I., and Yarmouth, N.S.—Tide tables for Summerside were calculated for the eight months from April to November and supplied to the Summerside *Journal*, in which they were published one month at a time, with due acknowledgement to this Survey. These tables are based upon the observations which were secured at that port itself in 1901. The tide tables for Yarmouth are computed from St. John, N.B., by means of the difference in time already determined by this Survey. They are published in the Yarmouth *Times*.

Tadoussac, Cacouna and Little Métis.—Tide tables for the months of July, August, and September were again computed for these seaside resorts to meet the demand of the summer residents and tourists. These tide tables were prepared in manuscript only and posted at the leading hotels.

The tide tables for the five places last mentioned were all prepared by some extra work, without incurring expense or the cost of printing.

CABOT STRAIT.—TIDAL COMPARISONS.

Summary of Results for Cabot Strait, between Cape Breton and Newfoundland.—One of the principal tidal stations is at St. Paul Island in the middle of this strait; and the endeavour was first made to obtain comparisons with Sydney harbour and Port aux Basques on the two sides. The tide at Sydney has so unusual a character, with large secondary undulations, which are often one-third of the height of the main tide, that it was quite unsuitable for comparison with St. Paul Island. After one complete month was secured at Sydney, the gauge was removed to Neil's Harbour, a point on the Atlantic side of Cape Breton Island, as near to its northern extremity as practicable. It was distant 30 miles from St. Paul Island to the westward; while Port aux Basques, which is close to Cape Ray, at the south-west angle of Newfoundland, was distant 52 miles to the eastward. The clear width of the strait is 66 miles.

St. Paul Island is the principal station to which the tides on the south-west side of the Gulf of St. Lawrence and in the region of Northumberland strait are referred; and the immediate object of the comparative observations on the two sides of Cabot strait, was to see whether a sufficiently constant relation could be established with St. Paul Island to enable either of these localities to be used to replace it as a reference station for the regions above referred to. The extreme exposure of St. Paul Island makes the gauge unusually liable to accident; and once already it has been carried away, and twice afterwards it was partially wrecked by winter storms.

The total length of tidal record obtained in 1901 from the self-registering gauges at these three localities, was as follows:

Neil Harbour, east side of Cape Breton.. .....From Aug. 9, to Oct. 31.
St. Paul Island; permanent station, Cabot Strait,.....Continuous record.
Port aux Basques, S. W. angle of Newfoundland,.....From July 9, to Oct. 31.

The differences in the time of the tide in relation to St. Paul Island were fully worked out for these localities. The result, after excluding a few exceptional irregularities, is given below; and it is at once evident that the variation in the difference of time is too great to enable either locality to be taken to replace St. Paul Island. It is remarkable to find so wide a variation in time on such short distances. The comparison with Pictou is also included for the same period, July 15 to October 31; and it is noteworthy that the range in the difference is little greater than for Port aux Basques. The difference with Pictou has also the advantage of being more nearly equal for high and low water, and consequently more amenable to reduction to law, by which the variation in the difference can be allowed for. The variation and the range are in absolute time throughout.

COMPARISONS WITH ST. PAUL ISLAND.—Difference in the Time of the Tide.

Localities.	Number of Differences obtained.	Variation in the Difference of Time.	Range in the Difference.
			M
Neil Harbour, H. W.	130	0 m. to 39 m. earlier	39
" " L. W.	116	7 " 40 "	33
Port aux Basques, H. W.	158	6 m. earlier to 38 m. later	44
" " L. W.	150	15 " 49 "	64
Pictou H. W.	190	1 h. 04 m. to 2 h. 00 m. later	56
" L. W.	184	0 h. 44 m. to 1 h. 45 m. "	61

Throughout the region which extends from Cabot Strait to Northumberland Strait, the leading variation in the difference of the time of the tide follows the moon's declination; and it is greatest in amount when the declination is at its maximum. This is well illustrated by the following comparisons. The first of these shows the unusual result that the two tides of the day at Port aux Basques are alternately earlier and later than at St. Paul Island when the moon's declination is high. In the second table, a direct comparison is made at a time of high declination for each of the three localities in Cabot Strait with Pictou itself; which is the local port of reference for Northumberland Strait.

TIDES IN CABOT STRAIT.—Comparison when the Moon's Declination is High.

Date.	Time of High Water.			Time of Low Water.			Moon's Declination and Phase.
	St. Paul Island.	Port aux Basques.	Difference.	St. Paul Island.	Port aux Basques.	Difference.	
1901.	H M	H M		H M	H M		
July 11....	3 41	4 00	19 m. later.	10 30	10 23	7 m. earlier	
" 11....	16 58	16 53	5 m. earlier.	22 42	23 08	26 m. later.	
" 12....	4 52	5 03	11 m. later.	11 39	11 20	19 m. earlier	
" 12....	18 00	18 02	2 "	.....	.....	.....	
" 13....	5 51	6 05	14 "	0 04	0 30	26 m. later.	
" 13....	19 16	19 10	6 m. earlier.	12 42	12 25	17 m. earlier	Maximum north.
" 14....	6 52	7 05	13 m. later.	0 53	1 20	27 m. later.	
" 14....	20 22	20 07	15 m. earlier.	13 40	13 27	13 m. earlier	
" 15....	7 33	8 03	30 m. later.	1 36	2 12	36 m. later.	
" 15 ..	20 52	20 50	2 m. earlier.	14 32	14 07	25 m. earlier	New moon.

TIDE AT PICTOU IN RELATION TO THE THREE TIDAL STATIONS IN CABOT STRAIT.

Date.	H. W. at Port aux Basques.	H. W. at Pictou.	Difference in Time.	Alternation in Difference.	Moon's Declination.
1901.	H M	H M	H M		
August 23	— —	3 25	— —		
" 23	15 50	17 37	1 47		
				— 63 minutes	
" 24	3 28	4 12	0 44		Maximum south.
				+ 81 "	
" 24	16 48	18 53	2 05		
				— 95 "	
" 25	4 40	5 10	0 30		
				+ 63 "	
" 25	17 57	19 30	1 33		
				— 58 "	
26	5 45	6 20	0 35		
				+ 57 "	
" 26	18 40	20 12	1 32		
				— 37 "	
" 27	6 40	7 35	0 55		
				+ 32 "	
" 27	19 28	20 55	1 27		
	St. Paul Island.	Pictou.			
August 23	1 45	3 25	1 40		
				+ 01 minutes	
" 23	15 56	17 37	1 41		
				— 24 "	
" 24	2 55	4 12	1 17		Maximum south.
				+ 26 "	
" 24	17 10	18 53	1 43		
				— 48 "	
" 25	4 15	5 10	0 55		
				+ 28 "	
" 25	18 07	19 30	1 23		
				— 24 "	
" 26	5 21	6 20	0 59		
				+ 33 "	
" 26	18 40	20 12	1 32		
				— 08 "	
" 27	6 11	7 35	1 24		
				+ 10 "	
" 27	19 21	20 55	1 34		
	Neil Harbour.	Pictou.			
August 23	1 47	3 25	1 38		
				+ 41 minutes	
" 23	15 18	17 37	2 19		
				— 57 "	
" 24	2 50	4 12	1 22		Maximum south.
				+ 61 "	
" 24	16 30	18 53	2 23		
				— 78 "	
" 25	4 05	5 10	1 05		
				+ 60 "	
" 25	17 25	19 30	2 05		
				— 50 "	
" 26	5 05	6 20	1 15		
				+ 44 "	
" 26	18 13	20 12	1 59		
				— 29 "	
" 27	6 05	7 35	1 30		
				+ 28 "	
" 27	18 57	20 55	1 58		

The last table brings out in the clearest light the pre-eminent advantage of St. Paul Island over the other localities in Cabot Strait, as a station to command the whole region under consideration. This advantage must depend largely upon its being situated in deep water ; the 100-fathom line being within three miles of the eastern shore of the island, on which the tide gauge is situated. It emphasises also the importance of chosing strategic points as principal stations, whatever the exposure and the difficulties in maintenance may be, in preference to sheltered harbours where the tide itself is more irregular, owing to shallower water or greater local interference.

NORTHUMBERLAND STRAIT.—TIME OF THE TIDE.

In the season of 1896 a series of simultaneous observations in Northumberland Strait was obtained at the following localities, in the order of the progress of the tide : Souris, Pictou, Charlottetown, and Cape Tormentine. Some comparative observations were also obtained on the open Gulf coast on the north shore of Prince Edward Island and in Miramichi Bay. These observations when compared with the 'Establishments' for intermediate localities in Northumberland Strait, were sufficient to enable a table of 'Tidal Differences' to be prepared, to accompany the tide tables for this region. The remaining localities on the open Gulf coast were referred directly to St. Paul Island. The results are given, together with the general method used in the calculation of the tide tables for Northumberland Strait, in the Tidal Survey Report of December 15 1898, pages 7 to 10.

In the season of 1901 further observations at Pictou, Charlottetown and Summerside were obtained, to secure more extended data for the calculation of tide tables for these ports. This year was an appropriate one for the purpose in view, as the moon's declination has now its minimum range, whereas in 1896 the range was at its maximum. The tides throughout this region vary chiefly in accordance with the moon's declination ; and diurnal inequality is thus a ruling feature of the tide. The observations at Pictou, the port of reference for this strait, extended from May 20th to November 15th without any interruption of consequence. These will enable a revised table to be prepared for the calculation of the tides at Pictou from the principal tidal station at St. Paul Island, for years when the moon's declination is low. The table in use up to the present time is given in the Tidal Survey Report for 1898, page 9. All the observations are taken in Atlantic standard time and the differences are thus in absolute time throughout.

Charlottetown.—The observations obtained here in 1896, were much interrupted by the chokage of the inlet to the gauge. At the ends of the wharfs which extend to the channel, the water is deep ; but these are constantly occupied by shipping. At their sides, the water shallows at once, and there is great difficulty in securing low-water observations with a recording gauge. In 1901, the gauge was placed at Connolly's wharf, where sufficient depth was secured ; but there is more exposure and much interference from the bridge operations now in progress. The object aimed at, is to obtain the difference of time with Pictou for the calculation of the Charlottetown tide tables ; and the results secured in the two seasons are as follows :—

1896. Observations from June 20th to November 24th.

From 104 reliable differences, H. W. 51 m. later than at Pictou.
" 99 " " L. W. 58 m. " "

1901. Observations from June 1st to November 15th.

From 255 differences, High Water 31 m. later than at Pictou.
" 259 " Low Water 47 m. " "

The divergence in the values is considerable ; and on so long an average, it is difficult to account for. The individual differences also show a wide range in their variation. In the case of high water for which the divergence is greatest, a further distinc-

tion was accordingly made between spring and neap tides, by dividing the month into four quarters. The result is as follows; the observations of both years being combined, and the value given for low water being the general average.

Tide at Charlottetown later than at Pictou :—

For High Water.—About the time of Spring-Tides, 42 m. later.
About the time of Neap-Tides, 30m. later.
For Low Water.—Throughout the month, 50m. later.

Summerside.—The tide-curves here show the effect of tidal interference to a more marked extent than at Charlottetown. The curve at low water is frequently much flattened; or in other words, the tide stands at nearly the same level for an hour or two before rising.

A trial comparison of the difference in the time of the tide for a period of one month was made with both Pictou and St. Paul Island, the two reference stations in this region. It was thus ascertained that the variation with St. Paul Island is 40 per cent greater than with Pictou in the case of high water, and 14 per cent greater in the case of low water.

Accordingly, the difference in the time of the tide between Summerside and Pictou was worked out for the whole period of the observations, from June 12 to November 15, the average results being as follows :—

From 236 differences, time of High Water 50m. later than at Pictou.
From 231 " time of Low Water 1h. 15m. " " "

The extreme variation in the individual differences of time, amounts to 42 minutes more or less than these averages; which illustrates the large irregularity that results from tidal interference in this strait, especially towards its west end; as the dominant tide advances along the strait from the eastern end.

The following table gives the resulting tidal differences for the strait, when revised to accord with the latest information obtained. The values for the intermediate places were found from the differences of "Establishment" taken in both directions from the localities at which the new observations have been secured.

Tidal Differences for Northumberland Strait, to be Applied to the Time of the Tide at Pictou, to give the Time of High and Low Water in Atlantic Standard Time (for the 60th Meridian).

Locality.	For High Water.	For Low Water.
	H. M.	H. M.
Souris	Sub. 1 17	Sub. 1 15
Port Hood	" 1 02	.....
Cape Bear	" 0 57	.....
Cape George	" 0 45	.....
Pictou	Add 0 00	Add 0 00
Tatamagouche	" 0 04	.....
Pugwash	" 0 36	.....
Charlottetown	" 0 37	Add 0 50
Cape Tormentine	" 0 23	" 0 43
Baie Verte	" 0 27	.....
Summerside	" 0 50	Add 1 15

Observations secured to date.—The amount of tidal record secured so far at the summer stations in these regions, is shown in the following table. At all the localities mentioned, the observations have been secured with self-registering tides gauges. The use of such gauges which give a continuous record day and night, is specially advantageous where the two tides of the day are so unequal.

These observations have furnished simultaneous comparisons with St. Paul Island and Pictou; which afford the basis for the calculation of the tide tables published for Pictou and Charlottetown; and also for the tidal differences above given, which are published in the tide tables.

Locality.	Year.	Period of Tidal Record.	No. of Tides compared.		Port of Reference.
			H. W.	L. W.	
Lower Neguac	1896	3 months.	102		St. Paul Island.
Alberton	1896	11 days.	13		" "
St. Peters	1896	29 "	31		" "
Neils Harbour	1901	2¾ months.	130	116	" "
Port aux Basques	1901	3½ "	158	150	" "
Souris	1896	5¼ "	165	156	Pictou.
Pictou	1896	5½ "			
"	1897	3¾ "	716	711	St. Paul Island.
"	1901	6 "			
Charlottetown	1896	3 "	104	99	Pictou.
"	1901	5½ "	255	259	"
Cape Tormentine	1896	1½ "	58	67	"
Summerside	1901	5 "	236	231	"

NORTHUMBERLAND STRAIT.—TIDE LEVELS, AND LOW WATER DATUM.

Pictou, N.S.—The Bench-mark to which the levels are referred, is the surface of the stone door sill at its south end, in the door way of the Custom House building which faces the Harbour.

	Feet.
Elevation adopted for the Bench mark as above	100·00
Extreme High Water, which occurred during the 'August gale,' on August 9, 1873. The highest tide known, but not definitely recorded.	
Exceptional High Water; a night tide in December, 1889, as marked by the Harbour Master at the time. It occurred during a gale from the north and north-west	90·86
Exceptional High Water of December 5, 1900; as marked at the time by Mr. Peter Fraser	89·72
Highest tide recorded by the tide-gauge during the season of 1896, from June 3, to November 27. Occurred during a storm on November 6	88·35
Highest tide recorded by the gauge during the season of 1897, from June 21 to November 30. Occurred during a storm on November 27	88·40
Several tides in these seasons reached elevation	87·65
Highest tide recorded by the gauge during the season of 1901, from May 20 to November 15. Occurred on October 1	87·85
(A storm tide on November 10, was 0·05 foot higher.)	
Low Water Datum, based upon the average elevation of the lower of the two Low Waters in the day, at spring tides, during the three seasons of 1896, 1897 and 1901	81·40
(This should be the same as the low water datum of the Charts, as nearly as can be ascertained by the observations of these three seasons.)	
Lowest Low Waters recorded by the gauge in each of the three seasons, between the dates already given :—	
Season of 1896, on June 26	80·25
Season of 1897, on November 27	80·15
Season of 1901, on May 20	80·02
Zero of the scale of the tide gauge in 1896	80·16
" " " in 1901, set six inches lower than in 1896	79·66

Charlottetown.—There is no City datum ; although an approximate level for Low Water was obtained from a short series of tidal observations when the drainage system was put in ; and more recently, the tide levels established by this Survey in 1896 have been made use of. There is no Bench-mark to record and fix the Low-water datum of the charts. The Bench-marks established by this Survey have enabled a uniform datum to be used for the tidal observations of 1896 and 1901. By the instrumental levels taken last season, all the information extant with regard to extreme high and low tides, has been referred to these Bench-marks, which thus serve to fix permanently all the important tide levels ; and the datum adopted in 1901 for the Hillsborough bridge now under construction, has also been connected with them. They are as follows :—

Original Bench-mark of 1896. On Peake's building at the south-west corner of Queen and Water streets. The northern end of the sandstone window sill, next to the corner, on the front of the building facing on Queen street. Elevation, 100·00.

New Bench-mark, 1901. On a brick block at the south-west corner of Queen and King streets. The top of the sandstone plinth at the corner, on the side facing King street ; the level being the same as the joint between the sandstone foundation and the brickwork on the King street side of the block. Marked by an inverted broad arrow on the stone above the plinth, and the letters B. M. Elevation, 103·18.

(The elevation of this Bench-mark above the Hillsborough bridge datum is 108·49.)

	Feet.
Exceptional High Waters during gales ; being night tides on October 11-12 and on December 5, 1900, the latter being the higher of the two. Average level of three points marked at the time by the Harbour Master and by Mr. G. Handrahan	95·30
Top of cap of wharf beside the tide gauge, at the south-west corner of Connolly's wharf	94·09
Highest High Water recorded by the gauge in the season of 1896. Occurred November 6 ; level raised by a storm	93·90
Highest High Water recorded by the gauge during the season of 1901, from May 30 to November 15. Occured on October 1	93·95
Low Water Datum, based upon the average elevation of the lower of the two low waters in the day, at spring tides, during the two seasons of 1896 and 1901	84·80
Lowest Low Water recorded by the gauge in the season of 1896 ; a number of those in the early part of the season being lost on account of chokage when the tide was low. Occurred October 9	84·35
Lowest Low Water recorded by the gauge during the season of 1901, between the dates already given. Occurred October 29	84·00
Exceptional Low Water, as observed by the Engineers of the Hillsborough bridge ; 1901 May 20	83·03
Zero of the scale of the gauge in 1896	81·80
" " " in 1901, set one foot higher than in 1896.	82·80
Level of the inlet of the tide column in 1901	78·03

Summerside, P.E.I.—A Bench-mark has lately been established here by Commander Tooker, R.N., to define a Low-water datum for the recent surveys made under his direction. As it is only attached to a pile wharf, however, it was deemed advisable to carry instrumental levels to one of the few masonry buildings in the town, for greater permanence.

The point chosen as a Bench-mark was at the north-east corner of Holman's block; the joint between the stone foundation and the brick-work, at the top of the course which forms the door-step level all along the street front of the building.

	Feet.
Elevation adopted for the Bench-mark as above	100·00
Exceptional High Water. Night tide on October 11, 1900. Six points marked at different places in the harbour as the level reached by the water, were found to range in elevation from 90·07 to 90·31. Mean value	90·21
Highest High Water recorded by the gauge during the season of 1901, from July 12 to November 15. Level raised by a storm on November 14	87·60

Highest High Water undisturbed by storms. Occurred on June 17	87·30
Bench-mark established by Commander Tooker. A broad arrow of sheet copper, placed on a pile on the east side of the Government wharf, nearly abreast of the lighthouse	87·30
Admiralty Low Water datum, defined as 7·60 feet below this Bench-mark	79·70
Lowest Low Water recorded by the gauge during the season of 1901, between the above dates. Occurred on October 30	80·10
Zero of the scale of the tide-gauge	79·30

Sydney, C.B.—The city datum was utilized for the tidal observations. To do this, it was necessary to carry the city levels half a mile further to the site of the gauge, which was placed at the Intercolonial Railway wharf at Battery Point. A Bench-mark was cut on the court house, on the corner of Charlotte and Desbarres streets, which is the nearest masonry building to the sight of the gauge. It is cut on the stone-work on the south side of the basement doorway, under the main entrance; on the west side of the building.

	Feet.
New Bench-mark cut on the court house, as above described. Elevation above the Sydney city datum	57·20
Cap of the wharf at the tide-gauge, Battery Point	10·43
Highest High Water recorded by the gauge during the observations from July 4 to August 6, 1901; occurred on July 17	5·35
Lowest Low Water recorded, in the same period; occurred on July 16	0·10
The Sydney city datum. (Intended for Low Water)	0·00
Zero of the scale of the tide-gauge; below datum	−1·51

Port aux Basques, Newfoundland.—The point made use of as a Bench-mark, is the top of an iron eye-bolt let into the rock, six feet west of the north-west corner of E. Pike's fish store: at the head of the Government wharf.

	Feet.
Bench-mark as above; elevation adopted	100·00
Highest High Water recorded during the season of 1901, from July 9 to November 1	93·95
Low Water datum; based upon the average elevation of low water at spring tides, as observed during the season	88·60
Lowest Low Water recorded during the season of 1901; occurred October 29	88·25
Zero of the scale of the gauge	86·13

Comparison of Spring Tides in Northumberland Strait.—In the season of 1901, the moon's perigee nearly coincided with the new moon in May and June; and in June the maximum declination also occurred at new moon. In this region the moon's declination is the ruling astronomical factor; as it gives rise to the diurnal inequality which is here so pronounced. In consequence, one of the two tides in the day had an unusual range in June. Conditions favourable to extreme tides did not recur till the autumn, the perigee falling near the full moon in October and November, with high declination. At St. Paul Island the diurnal inequality is less pronounced; and in consequence the spring tides are more nearly equal throughout the season. But only those at the corresponding dates are given for comparison with the tides in Northumberland strait.

The elevations given for comparison are not referred to the same datum throughout; there being as yet no continuous datum established in Canada. Each set of levels is therefore referred to its own local datum.

St. Paul Island, N. S.

Date.	High Water.	Date.	Low Water.
Sat. June 15....	6.30	Mon. May 20....	2.15
Mon. June 17....	6 45	Tue. June 18...	2.50
Wed. July 17 ...	6.65	Sat. July 13...	2.80
Mon. Sept. 30*...	7.10	Tue. " 16....	3.00
Fri. Oct. 25....	6.75	Sun. Sept. 29....	3.05
Mon. Oct. 28....	6.50	Tue. Oct. 1...	3.05
Sun. Nov. 10..	6.55	Tue. Oct. 29 ...	2.60

Pictou, N.S.

Date.	High Water.	Date.	Low Water.
Sat. June 15....	87.50	Mon. May 20....	80.02
Mon. " 17....	...	Tue. June 18.. .	81.20
Wed. July 17...	87.40	Sat. July 13....	81.25
Tue. Oct. 1....	87.85	Sun. Sept. 29 ...	81.40
Mon. Oct. 28...	87.25	Tue. Oct. 29....	80.60
Sun. Nov. 10*...	87.90	Wed. Oct. 30.. .	80.65
....	.....	.....	

Charlottetown, P.E.I.

Date.	High Water.	Date.	Low Water.
....	. ....	Mon. May 20....	83.03
Mon. June 17...	93.80	Tue. June 18....	84.45
Wed. July 17....	93.55	Wed. July 17....	84.90
Tue. Oct. 1....	93.95	Wed. Oct. 2 ...	84.75
Mon. Oct. 28....	93.75	Tue. Oct. 29....	84.00

Summerside, P.E.I.

Date.	High Water.	Date.	Low Water.
Sat. June 15....	87.25	. .....	
Mon. " 17....	87.30	Tue. June 18....	80.50
Wed. July 17....	87.20	Sat. July 13.. .	80.40
Thur. Oct. 3....	87.20	Wed. Oct. 30....	80.10
Thur. Nov. 14*...	87.60	....	

* Tides marked thus, are raised above their true level by storms.

Effect of the Wind on the Height of the Tide in Northumberland Strait.—As a rule, the tide is highest with north-east wind, and lowest with south-west wind. This is in accordance with the general course of the tidal undulation in its progress along the north-west side of Cape Breton island, in approaching the eastern end of the strait; as these winds are in its favour or contrary to its direction.

Weather Conditions at the time of the Exceptional High Waters in Northumberland Strait, above given.—At Pictou, Charlottetown and Summerside, meteorological observations are taken regularly at 9, 14 and 21 o'clock. The wind record is thus for the day time only; and the barometer readings may not give the actual maxima and minima which occur.

The exceptional high water on the night of October 11-12, 1900, is the highest on record at Charlottetown and Summerside, P.E.I. At Charlottetown there was a gale before and after; but it calmed down at about midnight and the tide rose suddenly, flooding the wharves. At Summerside the conditions were precisely similar. The weather conditions on the two sides of the strait at the time were as follows :—

At Pictou; barometer on October 9 at 14 o'clock Standard time, 30.15; falling steadily till the 11th at 21 o'clock when it reached its lowest, 29.15.

October	9	Wind	north-east all day.	Force	III to IV,	Beaufort scale.	
"	10	"	north-east to east.	"	IV to III,	"	"
"	11	"	east to north-east	"	IV to VIII,	"	"
"	12	"	south-west & north-west	"	IV to III,	"	"

At Charlottetown, the barometer fell steadily from 30·270 on October 9 at 21 o'clock; the lowest observed being 28·893 on the 11th at 21 o'clock, Standard time. On the 11th there was a violent rain storm from 18 to 20:30 o'clock.

October 9. Wind north-east and east all day. Rainy.
" 10. Wind east, falling to calm. Raining.
" 11. Wind south-east, east, and south-west. Rain heavy at times.
" 12. Wind north-east or calm. Weather clearing.

At Summerside, the weather observations were as follows :—

October 9. Wind north-east, with rain; all day.
" 10. Wind " "
" 11. Wind east and north-east all day. Rainy.
" 12. Wind north, changing to north-west in the afternoon.

At the time of the exceptional high water on December 5, 1900, the wind was also north-east, amounting to a moderate gale. At Pictou the barometer reached its lowest, 29·23, on the 5th at 14 o'clock. The wind record was as follows :—

December 4. Wind west to north-west. Force II to VI, Beaufort scale.
" 5. " north-east all day. " VII to VI, "
" 6. " north-west all day. " III to I, "

CURRENT IN NORTHUMBERLAND STRAIT.

Observations of the turn of the current were taken in 1901 on the north side of Pictou island, from June 20 till September 15; a total of 164 observations being secured. These were compared with the simultaneous tidal records at Pictou, which has proved the best port of reference for Northumberland strait; and with the tide at St. Paul island, the principal tidal station for this region.

In these comparisons between the time of the turn of the current in the strait and the time of the tide, it was found that the variation in the difference of time was somewhat greater with Pictou than with St. Paul island. It will therefore be better eventually to refer the current directly to the tide at St. Paul island; as the tide tables for Pictou are deduced from that station, and the ultimate reference is to St. Paul island in either case. This will be the best mode of procedure when sufficiently extended observations have been secured to enable a current table to be computed for this strait; but for our present purpose, to indicate the laws which govern the current, we may make the reference to Pictou, the nearer station.

The variation in the difference of time between the turn of the current and the tide is large; as the turn may take place as much as two hours before high water or after low water. The greater part of the variation follows the change in the moon's declination; as this has been found from the first to be the ruling element in this region. This is very confusing to the mariner, as the turn of the current in relation to the tide is out of accord with the moon's phases, and has thus no fixed relation to the spring and neap tides. The greatest apparent irregularity is when the moon's declination is at its maximum; and this occurs sometimes at the spring tides and sometimes at the neaps. The ordinary navigator takes refuge in the conclusion that the currents are chiefly influenced by the wind.

In the case of a tide which is ruled by declination, the chief variation is of the nature of a diurnal inequality. To arrive at correct conclusions, it is therefore important to have observations both day and night. The shore observations which were the only ones that could be taken in the circumstances, could only be obtained in the day time; but to make up for this, a careful analysis of the results was made, on which we will endeavour to base, as concisely as possible, a statement of the laws governing the current in this strait. These laws are well established by the observations; but the amounts of the time-intervals between current and tide are subject to revision, as the length of these observations was not sufficient to eliminate irregularities due to weather conditions.

RELATIONS BETWEEN THE TURN OF THE CURRENT IN NORTHUMBERLAND STRAIT, AND THE TIME OF HIGH AND LOW WATER.

(1.) The time-interval between the turn of the current and the time of the tide, is found to vary with the moon's declination; and the leading variations in this time-interval may be classified as follows:—

For the turn of the current when the tide is high: After an upper transit of the moon at its maximum north declination, or after a lower transit at maximum south declination, the turn occurs at $1^h\ 44^m$ *before* high water at Pictou. For the turn of the current when the tide is low: After a lower transit at maximum north declination or an upper transit at maximum south declination, the current turns at $1^h\ 52^m$ *after* low water at Pictou.

For the turn of the current at a time of maximum declination which comes after the opposite transits of the moon to those above indicated, the interval is as follows:—

For the turn when the tide is high, 14^m *before* H. W. at Pictou.
" " " " " low 18^m *before* L. W. at Pictou.

Hence for consecutive tides, there is an alternation in the time-interval, which is of the same character as the diurnal inequality in the tide itself. From the amounts above given, this alternation in the time-interval between the turn of the current and the time of the tide, has the following maximum values:—

At consecutive high waters, $1^h\ 30^m$. At consecutive low waters, $2^h\ 10^m$.

(2.) When the moon is near the equator, the turn of the current on the average, is nearly simultaneous with high and low water at Pictou. This average includes both the spring and neap tides.

(3.) Again, when the spring tides only are considered, and an average is taken which is long enough to eliminate the variation due to declination, the turn of the current is within 20 minutes of the time of high or low water at Pictou. The variation with the moon's phases thus appears to be small in comparison with the declination variation, and such irregularities in the turn of the current as may be due to wind disturbance.

The results, at the time of the moon's maximum declination, may be put in a tabular form as shown below. The low tide is the first to occur after the moon's transit.

MOON AT MAXIMUM DECLINATION NORTH.

After Moon's Upper Transit.		After Moon's Lower Transit.	
Tide Low :	Tide High :	Tide Low :	Tide High :
18m. before L. W.	1h. 44m. before H. W.	1h. 52m. after L. W.	14m. before H. W.

MOON AT MAXIMUM DECLINATION SOUTH.

After Moon's Upper Transit.		After Moon's Lower Transit.	
Tide Low :	Tide High :	Tide Low :	Tide High :
1h. 52m. after L. W.	14m. before H. W.	18m. before L. W.	1h. 44m. before H. W.

Further observations this year.—The observations of the current in Northumberland strait this year, were taken at its narrowest part, between Cape Tormentine and Cape

Traverse. They were obtained last winter and again in the summer season, as described further on in this report. These observations have not yet been worked out fully; but the turn of the current here also, can best be referred to St. Paul Island.

PACIFIC COAST TIDES.—SUMMARY OF RESULTS TO DATE.

The new information which has now been reduced to practical shape may be summarized as follows :—.

(1.) A comparison between the tide at Victoria and Esquimalt during six months in 1900, from simultaneous records obtained at the two places. (2.) A similar comparison between New Westminster and Sand Heads during four months at the four quarters of the year. (3.) Six months simultaneous comparison of the tide at Vancouver and Sand Heads in 1901, by which the time and the range of the tide at Vancouver becomes known from the tide tables for Sand Heads. (4.) Six months observations at Baynes Sound near the north-east end of the Strait of Georgia, compared with the simultaneous record at Sand Heads. (5.) An endeavour to recover the original datum at Victoria, or the low water level to which the soundings are referred on the chart of that harbour. (6.) The turn of the current in First Narrows, Burrard inlet, from six months observations taken in 1901 and compared with simultaneous tidal record. (7.) The current in Seymour narrows from observations taken by the U. S. Coast Survey in 1897, compared with the tide at Sand Heads.

All the tidal observations above indicated, were obtained by means of self-registering tide gauges. It may be noted that on the Pacific coast, there is not only a large diurnal inequality but also an annual variation. Hence to make satisfactory comparisons, it is necessary either to have six months of continuous observation at the two localities, or to take four months at the four quarters of the year. The stations for which tide tables are calculated are Victoria, in Fuca strait, and Sand Heads in the Strait of Georgia; and these are better situated for purposes of comparison and give much better results, than can be obtained from comparisons with the United States tidal station at Port Townsend, on which the information for British Columbia given in their tide tables, is based. The reason for this is the different character or type of the tide at these tidal stations, as already explained in the Report of December, 1900, page 7.

The results of the above observations and investigations have now been embodied in the annual tide tables for British Columbia, which were first published for the year 1901. All the results are in Pacific Standard time, and the differences are thus in absolute time.

Esquimalt.—Although this port is only 4 miles distant from Victoria, there is a considerable variation in the time of the tide between the two places. The observations extend over six months from May to October in 1900, and the resulting averages are given below. It will be noted also that the time of the tide is in reality later at Esquimalt than at Victoria, while in the United States tide tables both high and low water were given as earlier up to 1900; and the time of low water is still given as earlier.

From 223 differences, H. W. at Esquimalt is 14m. later than at Victoria.
" 246 " L. W. " 17m. " "

New Westminster.—A comparison with Sand Heads has been made during four months at the four quarters of the year; namely, December, 1899, and March, June and September, 1900. The time of high water at New Westminster is 40 minutes later than at Sand Heads, on the average. During the freshets in the early summer, when the water in the river is high, the time of high water is about half an hour later still.

The variation in the time of low water is very great. A general average value, based upon the lower low waters, shows that low water usually occurs at New Westminster 2 h. 30 m. after low water at Sand Heads. The higher low waters occur only half an hour to one and a-half hours after low water at Sand Heads. This uncertainty is of less importance, however, as these low waters are little felt at New Westminster.

Baynes Sound.—The observations were taken at the Union wharf by the officers of H.M.S. *Egeria*, and they kindly handed over the original records to the Resident Engineer of Public Works at New Westminster, from whom they were obtained for this Survey. This record extends in all from May, 1898, to June, 1899, and from November, 1899, to June, 1900. Parts of this record were complicated by troublesome time errors or were too much broken by interruptions to be serviceable. A continuous period of six months was selected as the most reliable for comparison with the simultaneous record at Sand Heads. This period extended from December 1, 1898, to May 31, 1899, with an interruption in January, which was supplied from a corresponding period in the following year. This afforded a time comparison between 325 corresponding tides at the two places.

The result is important, as it affords definite information as to the run of the tide throughout the length of the Strait of Georgia almost as far north as the southern tide runs, before meeting the contrary tide from the other direction. The difference in the time of the tide is very little; which may be accounted for by the great depth of the water, about 100 fathoms continuously, which accelerates the tidal undulation. There is also an evident variation with the season of the year, which shows the need of taking a period of a half-year to obtain a correct general average.

TIME OF TIDE IN BAYNES SOUND, COMPARED WITH SAND HEADS. (Monthly averages.)

	Dec.	Jan.	Feb.	Mar.	Apr.	May.
	mins.	mins.	mins.	mins.	mins.	mins.
Difference for H. W.	+3	—1	0	+6	+8	+13
Difference for L. W.	—2	—2	—1	0	0	+ 6

General average.—H. W. in Baynes Sound, 5 m. later than at Sand Heads.
L. W. " 0 m. (simultaneous with Sand Heads.)

Time of the Tide at Vancouver.—The comparisons between corresponding tides at Vancouver and Sand Heads have now been extended to a period of nearly six months from observations secured in 1901; and the result was worked out promptly for publication this year in the tide tables. The actual periods of the simultaneous comparisons are, June 14 to August 14, and October 12 to December 31. The difference in the time of the tide when reduced to monthly averages, is as follows :—

TIME OF TIDE AT VANCOUVER, COMPARED WITH SAND HEADS. (Monthly averages.)

	July.	Aug.	Oct.	Nov.	Dec.
	mins.	mins.	mins.	mins.	mins.
Difference for H. W.	31	33	26	24	27
Difference for L. W.	28	32	22	31	27

General average.—H. W. at Vancouver, 28 m. later than at Sand Heads.
L. W. " 29 m. " "

Range of the Tide at Vancouver.—To find the relation of the ranges at Vancouver and Sand Heads, a comparison was made for two months, June 14 to August 14, 1901.

It was found that the range at Vancouver was greater in proportion when the range itself was less, and vice versa. The point of equality corresponds to a range of $8\frac{1}{2}$ feet at Sand Heads. The rule given below is based upon average values.

To find the range of the tide at Vancouver, from the range at Sand Heads which is shown in the tide tables :—

(1.) When the range at Sand Heads is large (more than $8\frac{1}{2}$ feet), deduct 5 per cent.
(2.) When the range at Sand Heads is small (less than $8\frac{1}{2}$ feet), add 5 per cent.

Current in First Narrows, Burrard Inlet.—Observations at the Narrows were obtained during six months from April to September, in 1901 ; and instead of comparing these with Vancouver, a direct comparison was made with the tide as observed simultaneously at Sand Heads. In this way a difference is obtained by which the time of slack water in the Narrows may be found at once from the tide tables published for Sand Heads. There is remarkably little variation in the monthly averages, considering that the time of slack water is necessarily much less definite than the time of high water. The chief irregularity in the difference, is in the case of the small tides of little range when the movement of the current is slow, and the true moment of slack water is itself uncertain. The average of 181 observations at high water and 205 at low water gives the following result :—

Slack at High Water occurs 54m. after H. W. at Sand Heads.
Slack at Low Water occurs 50m. after L.W. at Sand Heads.

Current in Seymour Narrows.—The observations obtained by the U. S. Coast Survey in 1897, were compared with the simultaneous observations of the tide at Sand Heads, in the hope of establishing a reasonably constant difference in time between them. The variation in time proved to be very wide, however, amounting occasionally to one and half hours, earlier or later than the average value. Also, this variation appears chiefly to follow the change in the moon's declination, which throws it out of accord with the spring and neap tides. The most marked feature when the tide is governed by declination, is the diurnal inequality ; and as these observations were taken in the day time only, they were not sufficiently continuous or extended to establish a law by which this large variation could be taken into account.

Victoria. Datum plane of reference.—It is highly desirable in tidal observations, that the height of the tide should be referred to the original Low-water datum used for the soundings on the chart. When this is the case, the navigator has only to add the height of the tide to the soundings, to know the available depth of water. The primary importance of establishing a Bench-mark to indicate the Low-water datum of the soundings is rarely recognized, however.

The records of such a Bench mark at Victoria, were lost in the fire at New Westminister, when the Public Works office was destroyed. It is always a matter of great difficulty to re-establish the low-water datum when it is lost ; and it is quite evident that all questions of depth, alteration of shoals, grounding of vessels, &c., depend upon the true elevation of the plane of reference for the soundings being known and fixed permanently by reference to a Bench-mark.

Last season, Captain Walbran, of the D. G. S. *Quadra*, endeavoured to pick up the plane of reference at Victoria, from soundings on the shallows bordering the channel, taken during calm weather.

In this he was assisted by Mr. F. N. Denison, who recorded the height of the tide simultaneously. In the tide tables, the height of the tide is referred to the plane of reference used during the period of the observations themselves. A harmonic analysis has now been made from the two years of observation ; and the levels resulting make it possible to draw some conclusion as to the level of the water known as "Low water ordinary spring tides," to which soundings are usually referred. The large diurnal inequality makes this less definite however, than in regions where the tides are more regular. The levels referred to the plane of reference of the tidal observations are as follows :—

	Feet.
Mean Sea Level. From two year's observation, from April 1895 to April 1897...	5·75
Harmonic Tide Plane; at a distance below Mean Sea Level given by the sum of the harmonic constants $M_2 + S_2 + K_1 + O$.....	0·89
Lower Low Water; including in addition to the above, the remaining harmonic constants which represent the diurnal inequality.....	0·06

The last elevation given, corresponds closely with the datum of the tide tables. The only elements in the tide which carry it below this level, are the influence of the moon's perigee when it coincides with the above extremes, and the annual variation in the tide.

This shows that the datum plane of the tide tables is as low as it can be put with any reason, and the probability seems to be that this is fully as low as the low-water datum of the chart soundings. This is also corroborated by the results deducible from the special soundings above referred to. It is the practice of the Admiralty also, where there is a pronounced diurnal inequality, to take the lower low water as the reference level. It therefore appears probable that the plane of reference for the height of the tide as used in the tide tables, corresponds with the original low-water datum of the charts, as nearly as can now be ascertained.

Further observations.—The observations at Vancouver, B.C., were resumed on March 1, to secure better tidal data for that port. Also, on the occasion of the visit of the Chief Engineer to that coast in July, he made arrangement with the officers of the Meteorological Service for the erection of two gauges to obtain records of the tide of the open Pacific. One of these was placed at Bamfield creek, in Barkley Sound, on the west side of Vancouver Island; at a sufficient distance from the entrance to Fuca Strait to be out of the influence of its currents. The other gauge was placed at Port Simpson, B.C., which is open to the Pacific in both directions through Hecate Strait and Dixon Entrance. The recording instruments used at these stations are of the Richard type; a scale adapted to the range of the tide being obtained by a suitable alteration in the wheel-work.

The principal tidal station in the Strait of Georgia, situated at Sand Heads, has failed to record low water since June; on account of an alteration in the sand bars which now bank in the water at low tide. The neighboring tidal station at Garry Point will meantime be utilized by means of a double reference, in making comparisons with other harbours in the strait. Mr. G. A. Keefer, Resident Engineer of the Public Works department, will have the gauge at Sand Heads moved further out, where the water will have unimpeded access to it. Previous to the time of the above interruption, the length of tidal record which has been submitted to harmonic analysis, or tabulated in readiness for this analysis, amounts in all to five complete years.

THE PRINCIPAL TIDAL STATIONS.

The seven principal tidal stations in Eastern Canada have been maintained in operation throughout the year. At Quebec, Father Point, Belle Isle strait, and St. John, N.B., the tidal record secured has been continuous. At two of the stations only, serious interruption occurred. At Halifax there was a loss of several months on account of change of observers, before a satisfactory arrangement could be made. Also, at St. Paul island the trouble continued from the threatened choking of the inlet to the tide pipes, referred to in the last report; and finally in an exceptionally severe gale on November 25, 1901, the tide gauge was partially wrecked; the crib-work being carried away, and the iron cylinder displaced. It was braced up temporarily, however, and further record was secured until January 20 following, when the gauge ceased to work. At Yarmouth, N.S., the loss of record last winter extended from January 30 till February 26. There is a similar loss there each year, as this gauge is not heated.

The tidal observations secured last year at Sydney, Neil's Harbour and Port aux Basques, on the two sides of Cabot strait, showed that St. Paul island itself was much the most satisfactory station from which to deduce the tides in Northumberland strait

and the south-west side of the Gulf of St. Lawrence On this account it was deemed advisable to make sufficient expenditure upon it, to put it in thorough condition for the future. The crib-work was rebuilt of hardwood and the irregular angles between it and the rock were filled with cement to hold it in position. The iron cylinder was partially renewed. The difficulty with the chokage of the tide pipes had been largely due to material falling from the cliff above; a friable micaceous rock which is ground up rapidly into sand. The trouble was ultimately overcome by carrying the inlet of the tide pipes in the opposite direction, by brass piping, into a narrow gully which is always kept clean by the scour of the waves. Careful instructions were drawn up, and all the necessary fittings were designed or procured for these repairs; which were carried out during July by Captain Douglas, R. N. R., with the co-operation of Mr. S. C. Campbell, the superintendent of the island. The dipleidoscope which furnishes correct time, was carefully adjusted to the meridian; and the plane of reference for the height of the tide was re-established by instrumental levels from the Bench-marks already placed for the purpose. The work was inspected by myself at the beginning of August, when the final adjustments were made.

At Forteau bay in Belle Isle strait the tide gauge required considerable improvement. A sheathing of hardwood, four inches thick, was placed on the two most exposed sides of the crib-work and secured by heavy angle-irons at the corners. The iron cylinder had settled over to an inclination of one in twelve from the vertical; and in straightening it up, it was necessary to alter the positions of both gauges inside the tide house, and to refit the sight-gauge. Every thing was put in thorough repair and the various instruments were also adjusted, as at St. Paul island.

Types of Sight Gauge.—In the sight-gauge at Forteau bay, wooden rods are used for the connection between the graduated staff and the float. These rods are an inch in diameter, and are made of basswood for lightness. Their length is seven feet, and they are varnished to prevent them from absorbing moisture, as this would increase their weight and depress the float. The total length of the sight-gauge was carefully set at 16.00 feet in September, 1900; and in August, 1902, its length was found by accurate measurement to be 15.99 which proves this type of sight-gauge to be perfectly reliable. It is the most satisfactory arrangement when the distance between the staff and float is not too great to preclude its use. Where this distance is greater, as at St. Paul island, where it amounts to twenty-four feet, nickel wire made into long links has proved to be the most satisfactory connection. These results are mentioned because of the great difficulty in finding any material for this connection, which would withstand sea-water and maintain its length unaffected by the heating lamps in winter.

FIELD WORK IN THE SEASON OF 1902.

In arranging the work of the season the first consideration had to be given to the principal stations; as St. Paul island was partially wrecked and required reconstruction; the gauge in Belle Isle strait was not in a satisfactory condition; and there were difficulties at Halifax and St. John which demanded attention. Careful preparation was needed for this work, especially for the isolated places; as most of the fittings and iron-work had to be specially made. Also, with a view to the reconstruction of the tide-gauge at Father Point when the new wharf there is completed, two lengths of old boiler were secured for the tide column and stored there in readiness.

The gauges at St. John and Halifax were visited in May, and the difficulties adjusted or noted for further investigation. From June 20 to July 23 the four summer tidal stations at the southern end of Nova Scotia, between Shelburne and Yarmouth, were erected and the observations commenced. My assistant Mr. S. C. Hayden, was then left in charge of these, with headquarters at Clarke harbour; and in August and September the tidal stations at St. Paul island, Trepassey bay at the eastern end of Newfoundland, and in Belle Isle strait, were visited and put in order as explained above; and on the way, the instrumental levels required were taken at Yarmouth, Digby and Halifax. Clarke harbour was again reached on September 27 after making a round of 2,750 miles. Notes and sketches were made of the wharfs in the harbours around the Newfoundland coast, which will be of value for future reference.

SECONDARY TIDAL STATIONS IN SOUTHERN NOVA SCOTIA.

The object of the stations established this year on the Nova Scotia coast was to secure a better connection between the Atlantic tides and the Bay of Fundy. On a length of 60 miles of coast at the southern end of Nova Scotia, the tide increases from its oceanic range of 7 feet at Shelburne or Negro harbour, to 16 feet at Yarmouth at the entrance to the Bay of Fundy. It has already been ascertained by the observations of 1898, that the tides from Yarmouth upward throughout this bay, can best be referred to St. John, N.B.; and a further object of the present observations was to ascertain the dividing line between places referable to the principal tidal stations in the two directions, St. John, N.B., and Halifax. The tidal undulation in the North Atlantic strikes squarely upon the Atlantic coast of Nova Scotia, there being little difference in the time of its arrival at any of the harbours between Cape Sable and Scatari, except where delayed locally in running up deep bays. The height of the tide also, is nearly the same throughout this distance, and this whole coast can therefore be correctly referred to Halifax.

The points selected after careful consideration were Shelburne, Clarke harbour, Barrington passage and Pubnico bay. Shelburne is sufficiently far to the eastward of Cape Sable to be beyond the reach of any influence of the Bay of Fundy and thus to give the unaffected Atlantic tide. The observations there will also furnish a check on the time at the intermediate ports from there to Halifax. Clarke harbour is practically the same as Cape Sable and the nearest point to that cape at which shelter can be secured. It thus gives the tide at the extreme outlying angle at the southern end of Nova Scotia. At Pubnico bay, which is only 18 miles north-westward, the tide already has the same characteristics as in the Bay of Fundy. Lastly, Barrington passage was selected to afford an intermediate point in the progress of the tide, at about the middle of the time-interval between Shelburne and Clarke harbour.

Another tide gauge was placed at Trepassey Bay, within 16 miles of Cape Race, the extreme south-eastern angle of Newfoundland. It is a locality difficult to reach, as with nine days travel it was only possible to obtain two days at the locality itself. The object of this station is to secure tidal data with reference to the currents in the bays on the south coast of Newfoundland.

A list of the stations established, with the length of record obtained, is given below :—

Shelburne, N.S.—Gauge placed on the north side of the steamboat wharf. The wharf is built of piles, to which the gauge column is braced. Tidal record from July 7 till October 10. Observer, J. C. Morrison, harbour master.

Barrington Passage.—Gauge placed at Robertson's wharf, at which the local steamers call. Tidal record from July 12 till October 22. Observer, E. Nickerson, captain of the ferry steamer.

Clarke Harbour.—Gauge placed at the Government wharf, Swim's point, at the inner end of the harbour. Tidal record from July 2 till October 22. Mr Hayden here acted as observer.

Pubnico Bay.—Gauge situated at Lower East Pubnico, at D'Entremont's wharf; about half a mile above the lighthouse. Tidal record from June 27 till October 20. Observer, W. H. Amiro, customs officer.

Trepassey Bay, Newfoundland.—Instruments and fittings shipped from Ottawa, with full instructions, on June 19th. After much correspondence and enquiry, delivered at Trepassey August 1. Gauge placed at the steamboat wharf, and observations begun on August 6, but unavoidably interrupted from August 8 till the 21, the date of my arrival there. Satisfactory observations secured from August 21 till late in November. Observer, J. L. Murphy, customs officer.

These stations were all equipped with self-registering instruments of the Richard type. The tide columns were built of timber, with a clear area of 13 by 10 inches inside. The total length of the columns varied from 18 to 25 feet. The installation of

the gauges was similar to that described in the Report of December 1898, page 16, to which reference may be made.

Data for time and height.—It was not anticipated that there would be any difficulty in obtaining correct time at these localities ; as they are all telegraph or telephone stations. But at Lower East Pubnico the telegraph office was closed ; and the long-distance telephone elsewhere was not found satisfactory for the purpose. The only point where the time could be obtained correctly was at Barrington Passage, which is in reality the best centre of communication in the whole of this region. At the three other localities, chronometers were used, which were obtained from St. John, N.B., as soon as the necessity for them became evident. The observers were supplied with tables of correction for these chronometers, based upon their rates. The rate was also checked during the season, and at its close, by time comparisons. The time was thus kept correct to the nearest minute, which is as close as tidal observations can be made.

It was not deemed necessary to establish Bench-marks at any of these localities except Clarke harbour. At Shelburne and Pubnico, the wharves are of piling and are not liable to settlement ; and the zero of the tide scale is fixed with reference to the cap of these wharves, so that it can be placed at the same elevation again should observations be resumed. The tide column at Trepassey, Newfoundland, stands on solid rock, and can be replaced without alteration in level if required again. At Clarke harbour the Bench-mark is an iron bolt drilled into the rock at 14½ feet from the north-east corner of Swim's warehouse, which is the most northerly of a set of buildings extending to the Government wharf. The level of the zero of the tide scales at the various localities is defined as follows :—

Shelburne, N.S.....	Zero of tide scale		14.12 feet	below	cap of wharf.
Barrington Passage...	"	"	14.42	"	"	"
Clarke Harbour.....	"	"	21.98	"	"	the Bench-mark.
Pubnico Bay.....	"	"	17.58	"	"	cap of wharf.
Trepassey, N'fld.....	"	"	at rock surface, foot of tide-column.			

FURTHER TIDE LEVELS AND BENCH-MARKS.

Repeated endeavours have been made to ascertain the relation at Halifax between the Admiralty datum, the Royal Engineers' datum, and the City datum, none of which accord with each other. In explaining these relations care will be taken to distinguish what is reliable from what is uncertain.

The most important of these from a marine point of view, is the Admiralty Low Water datum, to which the soundings on the chart of Halifax harbour are referred. This datum is fixed by reference to a Bench-mark in the Dockyard ; and it is defined as follows in a note on the chart of Halifax harbour : " The soundings are reduced to the level of Low Water Ordinary Spring Tides, viz. : 16.08 feet below a Bench-mark cut near the South-east angle of the Sail loft at the Dockyard." It is further to be noted that the tidal observations themselves show that the datum as thus defined, accords correctly with mean low water at spring tides.

The levels were carried over from this Bench-mark to the tide gauge, which is situated at the Marine and Fisheries' wharf ; and the Admiralty datum as thus defined has been used throughout the series of observations as the plane of reference to which all tide levels have been referred by this Survey. The observations at Halifax were begun in 1895 ; and the levels have been repeatedly checked from the same Bench-Mark in subsequent years ; and any changes in elevation at the gauge, due to settlement or other causes, have been carefully allowed for, to maintain the same elevation for reference throughout.

The levels of the Tidal Survey are thus consistent, and they are in accord with the chart datum. But it is highly desirable that the tide levels as now determined, should be known with reference to the other datum planes, to make them available in the construction of harbour works, city drainage, etc.

The best relation between the other two datum planes, was established by Mr. E. H. Keating when City Engineer at Halifax, from comparisons between twenty-one Bench-marks, which define the City datum and the Royal Engineers' datum respectively. From his original notes, the difference between them, as indicated by these Bench-marks, ranges from 1.61 to 1.96 feet, when two exceptional values are discarded which he has marked. The actual average of the nineteen remaining differences is 1.81 feet; and the mean value which Mr. Keating has finally adopted, places the Halifax city datum at 1.85 feet below the Royal Engineers' datum. This value for the difference has since been generally adopted.

The height reached by the exceptional tide of October 5, 1869 known as the Saxby tide, was also determined by Mr. Keating in April 1876, from the best marks that could then be pointed out to him. From the mean level of these marks, he found the elevation which this tide reached at Halifax to have been 7.90 feet above the Halifax city datum.

A further endeavour was made this season, to connect the Halifax city levels with the Bench-mark in the Dockyard, to establish a relation with the Admiralty datum. But the city Bench-marks in that vicinity were found to have both "original" and "corrected" elevations; besides showing a want of agreement with each other; and no method of working out the comparisons could be devised to give a satisfactory result. Descrepancies ranging from four inches to a foot remained outstanding which could not be accounted for, as there was no means of knowing which of them had the greater balance of probability in their favour.

The elevation of the Bench-mark in the Dockyard is given as 11.05 feet above the Royal Engineers' datum on their own plans; and it is also so noted on the chart of Halifax harbour; but there was some doubt as to this, because the Royal Engineers' datum is presumably intended for Mean Sea Level. The true value of Mean Sea Level however, as now ascertained by this Survey from four complete years of continous observation, is found to differ by 1.55 feet from this value for their datum; an error which is inadmissibly large where the range of the tide is only seven feet. From a comparison which has just been made by the Royal Engineers, the corrected elevation of this Bench-mark is 12·61 above their datum. This determination now serves to define the relations desired.

The tide levels given below, are defined by reference to the one Bench-mark. These levels have been repeatedly checked by myself; and there is no error outstanding in them which exceeds 0.01 of a foot.

Halifax, N.S.—Tidal Levels and Datum Planes.		Above or below Admiralty Datum.
		Feet.
Bench Mark in the Dockyard, as above described, which records the Admiralty datum..		16·08
Coping of the Halifax Dry Dock.		10·97
Highest High Water during the tidal observations from 1895 to 1902. Occurred during a gale on November 25, 1901. Elevation reached.....		9·35
Mean Sea Level. Deduced from the hourly ordinates of the tide during four complete years of observation, as follows:—		
During one year, October 1895, to October 1896.....	3·391	
" " January to December, 1897.....	3·515	
" " " " 1898	3·512	
" " " " 1899	3·492	
Mean value for the four years..... ..	3·478	3·48
Harmonic Tide Plane, or low water mark at a distance below Mean Sea Level given by the sum of the harmonic constants $M_2 + S_2 + K_1 + O$. Mean value of this sum for the four years 1851—1852 and 1860—1861=2·955. Value for the year 1895-6 = 3·093 feet below Mean Sea Level which in that year was 3·391. Average elevation resulting....		0·41

HALIFAX, N.S.—TIDAL LEVELS AND DATUM PLANES.—*Continued.*	Above or below Admiralty Datum.
	Feet.
Admiralty Datum, or low water at ordinary spring tides; at 16·08 feet below the Bench Mark. Used as the plane of reference throughout the tidal observations since their commencement in 1895	0·00
(The tide tables for 1903 and onwards, are referred to this plane of reference.)	
Level of the plane of reference used for the early tidal observations of 1851–1852 and 1860–1861. Average for the four years = 4·377 feet below Mean Sea Level; or 1·421 below the Harmonic Tide Plane. Mean elevation resulting, below Admiralty datum	0·96
(The tide tables for the years 1897 to 1902 are referred to this plane of reference.)	
Sill of the Halifax Dry Dock. Level of the granite sill of the dock, below Admiralty datum	23·49
(The depth of water on the sill of the dock at any tide, may therefore be found by adding 23·4 feet to the height of high water as given in the tide tables.)	

Digby.—A Bench-mark was cut on a flight of granite steps to fix the levels of the tidal observations of 1898; but unfortunately these steps have since been pulled down. Accordingly, this season, a new Bench-mark was set upon the post office building, built since; there being no masonary buildings in the town in 1898. The levels were obtained from known points on the timberwork of the long Digby pier, which were compared with each other and carried to the new Bench-mark. This is on the north side of the tower of the post office building, at the joint between the granite foundation and the brickwork. It is marked by a broad arrow cut at the upper edge of the granite, at two feet west of the basement window in that side of the tower.

	Feet.
New Bench-mark as above described. Elevation	108·98
Top of cap on north side of pier, where the tide gauge column was placed. Elevation originally taken as 100·00 for convenience in the tide measurements	100·00
Highest high water observed in 1898; July 3, p.m.	93·90
Lowest low water observed; July 5, a.m	64·20
Inlet at foot of tide column	63·00

Yarmouth.—As noted in the Report of December 1898, the best point for a permanent Bench-mark which could be found in the vicinity of the tide-gauge, was the brick chimney of the Kemptville Lumber Company, as it stands on a stone base built in cement; and as the foundation is carried down to the rock, it is not liable to settlement. The point used as a Bench-mark is the joint between the stone foundation and the brickwork, at the northwest corner.

Levels have been taken since, on two occasions, to obtain the relation between the Tidal Survey levels and the town datum in Yarmouth; and in this endeavour the Town Engineer, Mr. E. S. Matheson, has given his co-operation. In the best comparisons that can be obtained, there is still an uncertainty of over two inches in the result however; as will be seen from the elevations referred to the Yarmouth town datum, given below. The elevations of some additional points are now given; and the slight variation in the elevation of the tide scale is also indicated. The rail level at the railway crossing at the foot of Forrest street was originally taken as 100·00, but this was found to have changed more than an inch between 1898 and 1901, and was therefore thrown out as unreliable. The levels on hydrants are taken on top of the spindle.

	Feet.
Bench-mark on chimney, as above described	108·53
On hydrant at the corner of Cliff and Main streets Elevation above Yarmouth town datum = 141·88.	137·31
On hydrant at the foot of Horton street, near Water street	103·87
On hydrant at the foot of Brown street, corner of Water street	103·32
Top of stone post at south-east corner of L. E. Baker's office; at head of the Yarmouth S.S. company's wharf Elevation above Yarmouth town datum = 99·54.	94·81
Highest high water observed in the season of 1898; July 4, p.m.	90·45
Lowest low water observed in that season; July 5, a.m.	74·15
Zero of Tide Scale; as originally set in 1898	72·36
" " after being replaced more than once by a new scale. Elevation in September, 1901	72·37

The above levels were taken in 1901 and 1902; and as in the case of all the Tidal Survey levels published, they are reliable within 0·01 of a foot. The zero of the tide scale in 1901 was checked by two series of measurements made by two different methods; and the alteration in elevation since 1898 may be disregarded where the range of tide is sixteen feet.

OBSERVATIONS OF THE CURRENTS IN THE SEASON OF 1902.

Northumberland Strait.—The current at the narrowest part of this strait was observed during last winter by noting the movements of the ice as seen from the two sides at Cape Tormentine and Cape Traverse. There was, however, less ice than usual during the season. Again, in the summer, notes were taken of the time of the turn of the current in mid-strait between these two capes. The notes were taken during the lobster season by fishermen while setting or hauling their traps. Independent notes from two men were secured under the supervision of Mr. E. Crosby, the station agent at Cape Traverse, who already had the experience of observing the drift of the ice in winter. Observations have thus been secured in winter from February 3 to March 29, and in summer from June 2 to August 23, with a comparatively slight expenditure.

Neighbourhood of Cape Sable, N.S.—In the offing of the coast from Cape Sable to Pubnico bay, some observations were taken this season by arranging with the fishermen to note the time of the turn of the current. The object in view was to obtain the first indraught of the current into the Bay of Fundy, with relation to the rise and fall of the tide as recorded simultaneously by the gauges on the shore opposite. The inshore fishermen in these parts do not anchor their boats, however, which makes their notes less definite than might be desired. Also, the season was unusually foggy, which occasioned much interruption in the record they were able to make. The result though thus imperfect, may give indications which will be of service until the work can be better done with adequate appliances.

South Coast of Newfoundland.—Information regarding the currents was obtained wherever possible while travelling during the season; from the captains of coasting steamers, and schooners accustomed to fish on the outlying banks. With regard to the alleged indraught into the bays on the south coast of Newfoundland, the best information obtained this season goes to corroborate the statements already given out by this Department, which were based upon inquiries previously made by this Survey. (See Notice to Mariners, No. 103 of 1901.) What has now been learned will also be of value as a guide in the further investigation of the currents on that coast.

Respectfully submitted,

W. BELL DAWSON,
Engineer in charge of Tidal Survey.

Gannet Rock Lighthouse, Bay of Fundy.

Grand Harbour, N. B., Lighthouse.

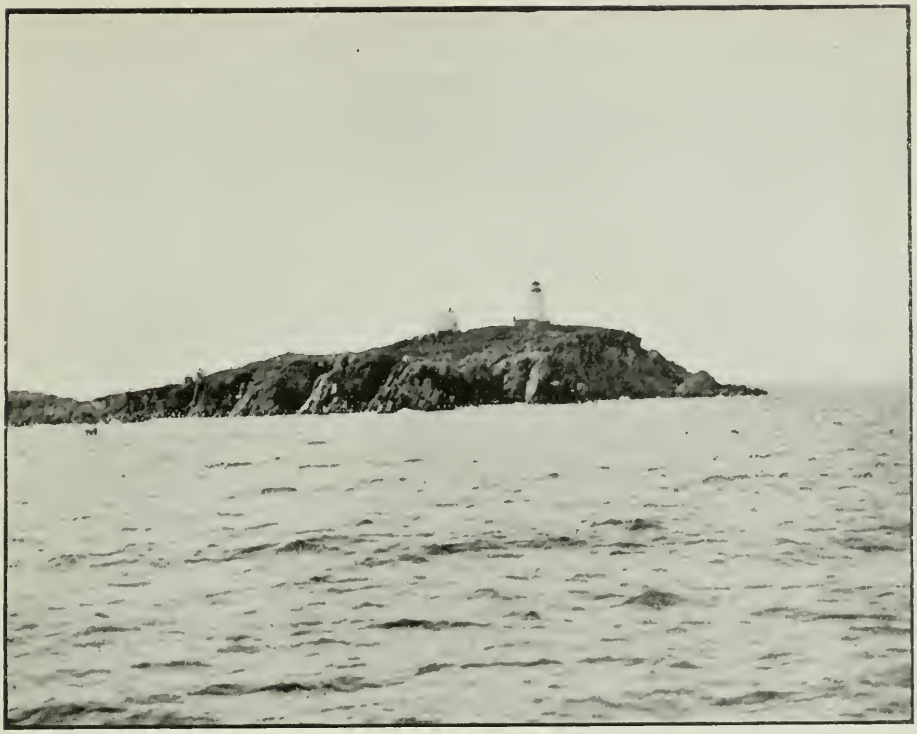
Digby Gut, Lighthouse and Fog Alarm.

Louisbourg, N. S., Lighthouse.

Cape Race, Newfoundland, Lighthouse and Fog Alarm.

Belle Isle, High Lighthouse.

Cape Race, Newfoundland, Lighthouse and Fog Alarm.



North East Point, St. Paul Island Lighthouse.

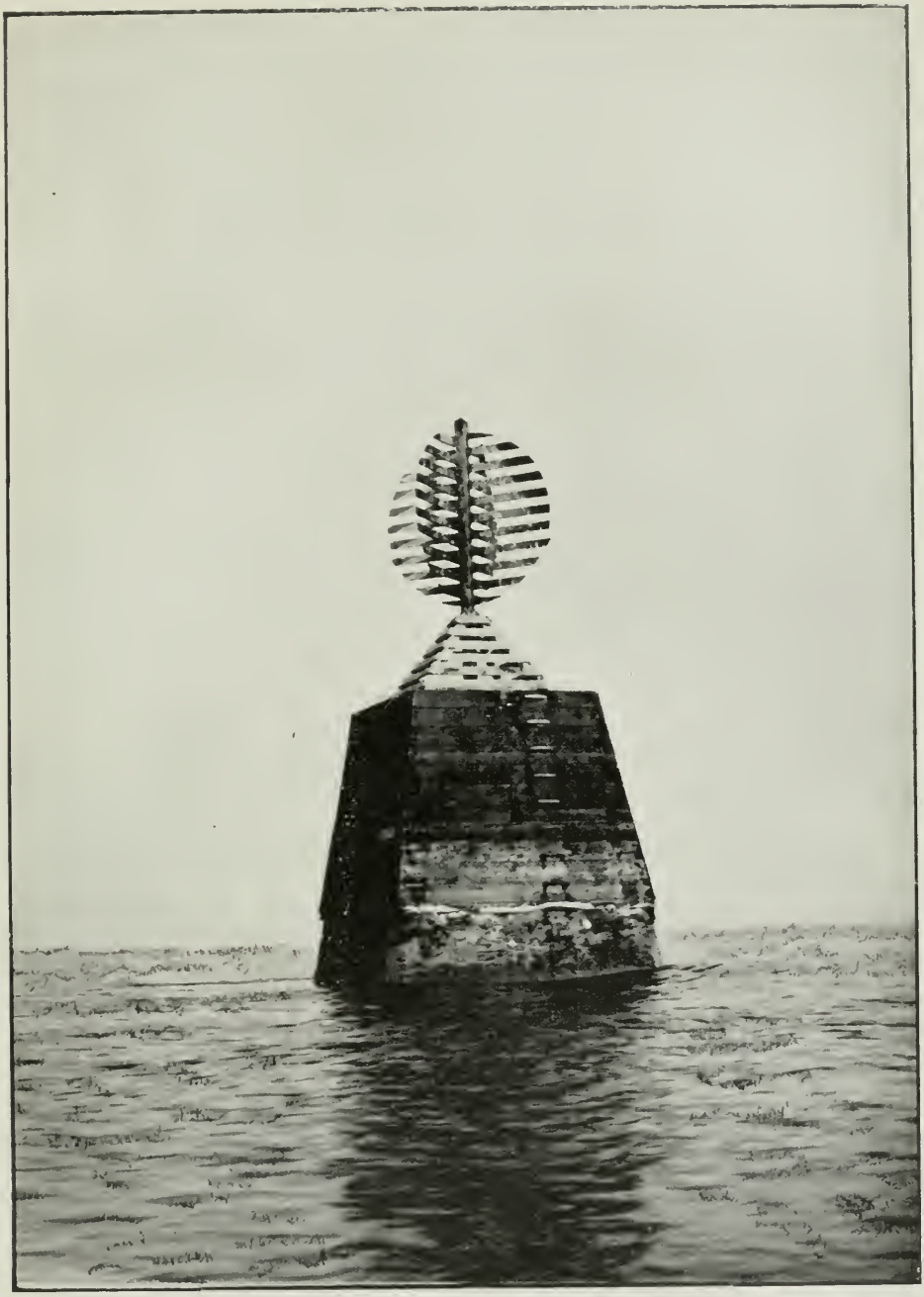
Cape Race, Newfoundland, water supply for Fog Alarm.

West Point, Anticosti, Lighthouse.

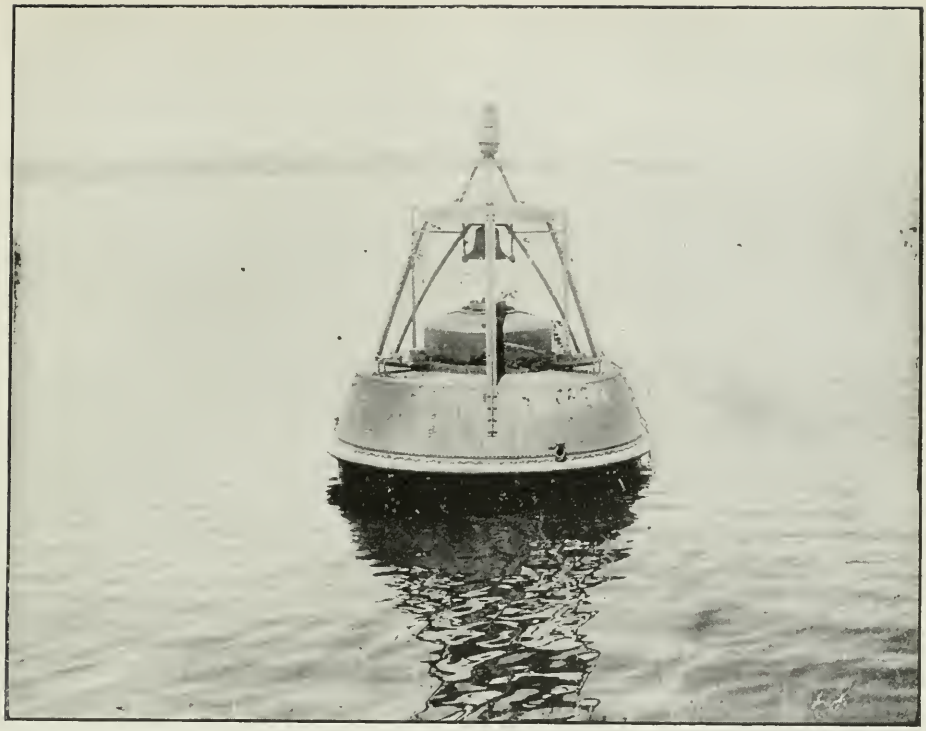
Pelee Passage, Lake Erie. Lighthouse, unfinished.

Fisgard Lighthouse, B. C.

Sand Heads, Fraser River, B. C. Lighthouse.



Gabriola Reef Beacon, B. C.

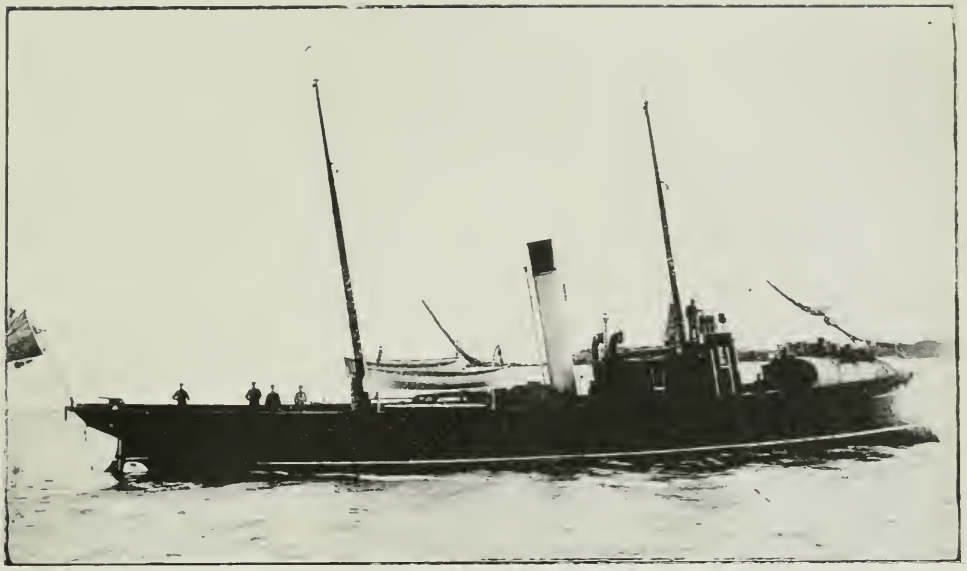


Ste. Croix, Que., Gas Buoy.

Tide Gauge, Halifax, N. S.

Life Saving Station, Seal Cove, Bay of Fundy.

Life Saving Station, Port Stanley, Lake Erie.

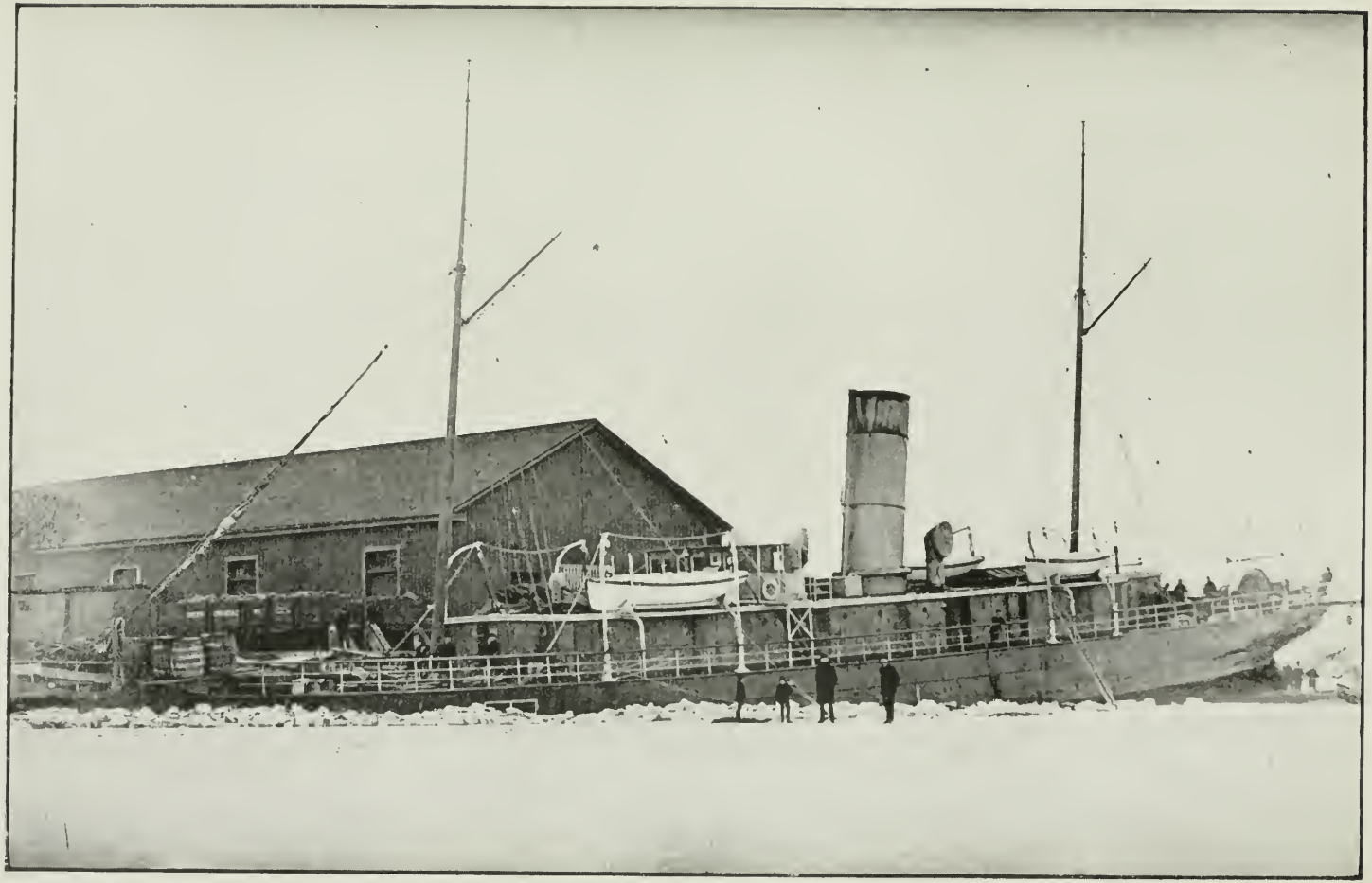


"CURLEW."

"QUADRA."

"La Canadienne."

Ice in Strait of Northumberland.



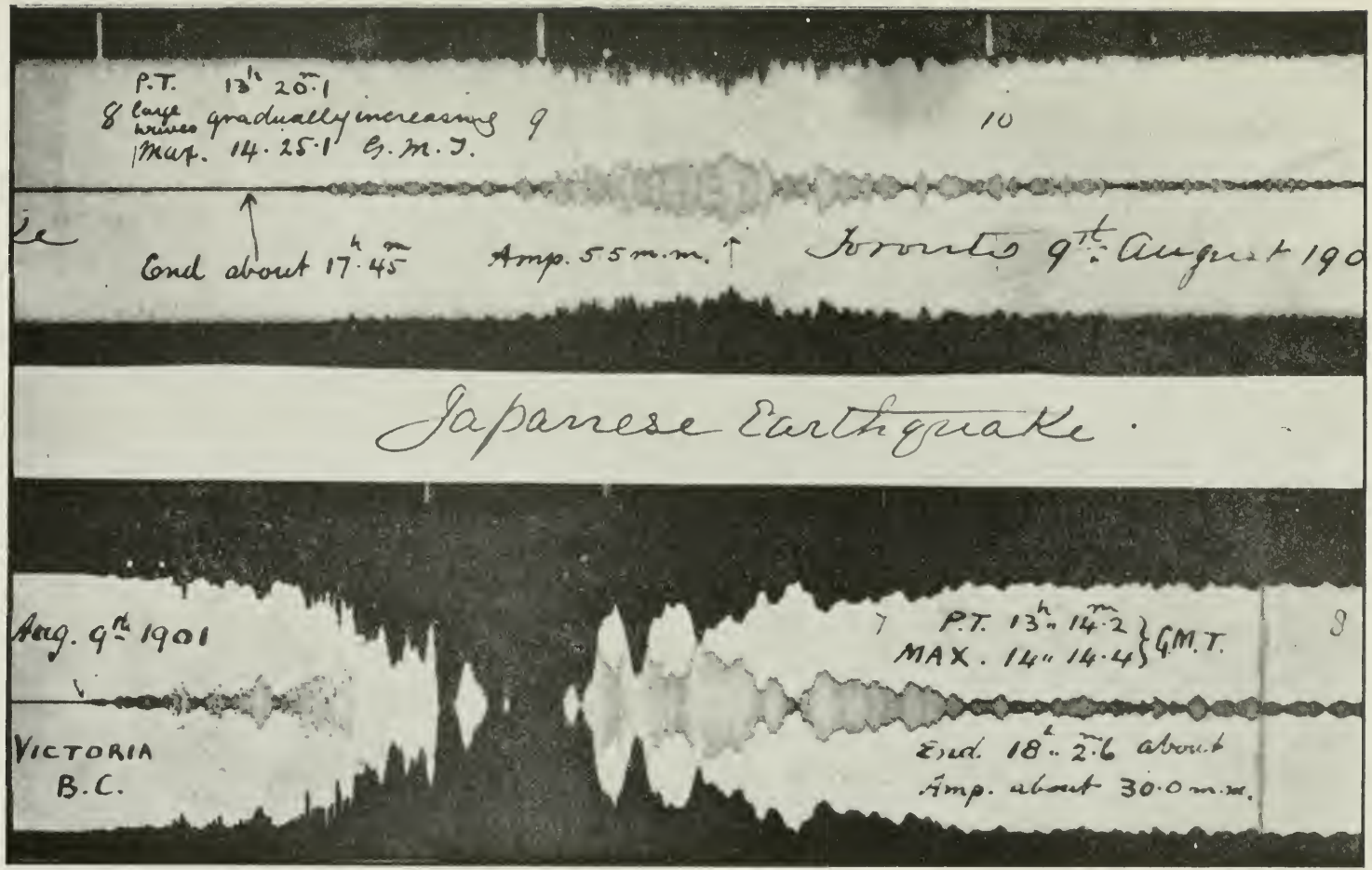
Stanley. Forward water ballast tanks filled to put on propeller in Pictou Harbour.

Minto working her way through Ice in Strait of Northumberland between Prince Edward Island and mainland.

Ice-boat, Prince Edward Island, Winter Mail Service.

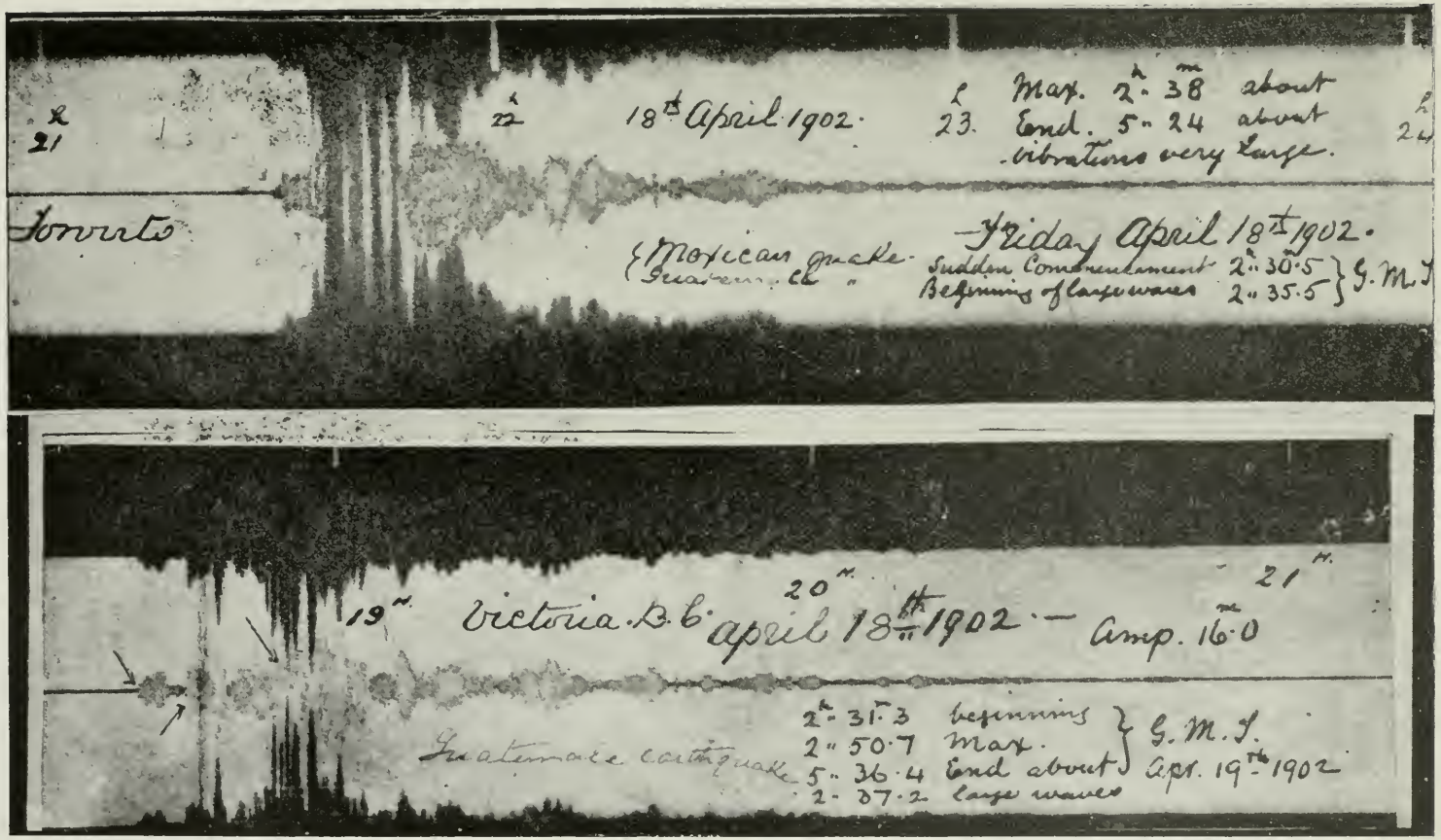
Magnetic Observatory, Toronto.

METEOROLOGICAL SERVICE. QUEBEC OBSERVATORY.



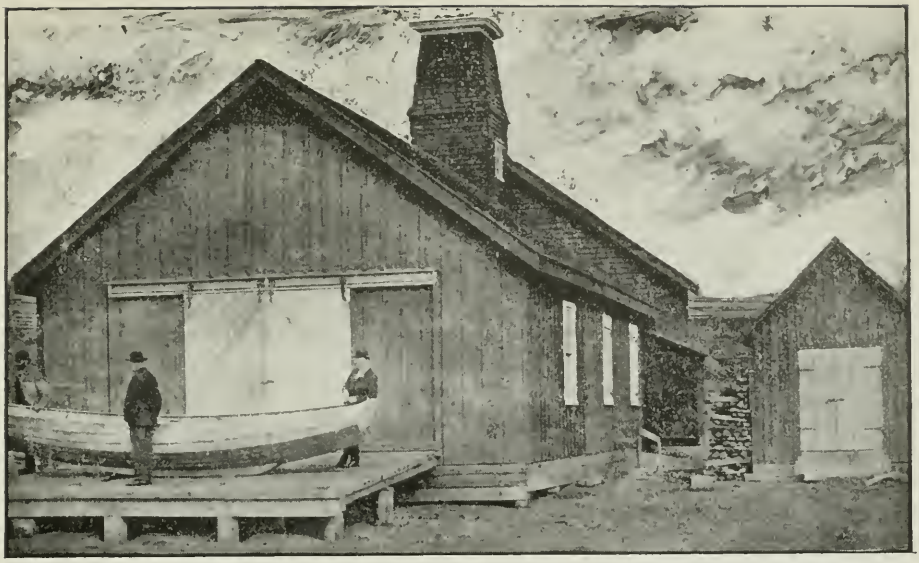
Meteorological Service.

Seismogram showing registration of earthwaves at Toronto and Victoria, B. C., caused by earthquake in Guatamala, April 18, 1902.



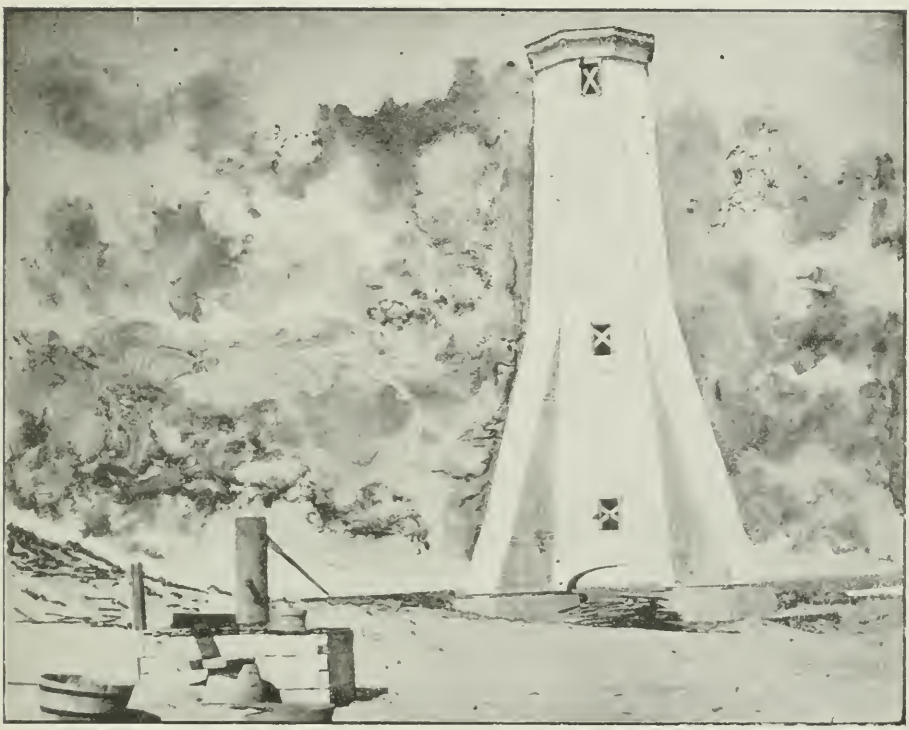
METEOROLOGICAL SERVICE.

SEISMOGRAM SHOWING REGISTRATION OF EARTH WAVES AT TORONTO AND VICTORIA, B. C., CAUSED BY JAPANESE EARTHQUAKE, AUGUST 9, 1901



Ice Boat House, Cape Traverse, Prince Edward Island.

Sulphur Mountain, Banff, site of Meteorological Station.



West End, Sable Island, Lighthouse, during removal.

PART II

STATEMENT OF EXPENDITURE—STATEMENT OF REVENUE—METEOROLOGICAL SERVICE—MAGNETIC OBSERVATORIES—SIGNAL SERVICE—BOARD OF EXAMINERS OF MASTERS AND MATES—LIVE STOCK SHIPMENTS—STATEMENT OF WHARFS—LIFE-BOAT STATIONS—STATEMENT OF SICK MARINERS DUES—REWARDS FOR HUMANE SERVICE—STEAMBOAT INSPECTION—LIST OF LIGHT-KEEPERS AND LIGHT STATIONS.

APPENDIX No. 1.

General Summary of Expenditure for Fiscal Year ended June 30, 1902.

Service.	Amount.	Total.
	$ cts.	$ cts.
Ocean and River—		
Maintenance and repairs to Dominion steamers	241,060 98	
Construction new steamers to replace *Newfield* and *Druid*	211,465 94	
Examinations of Masters and Mates	3,305 59	
Rewards for saving life, &c	8,278 55	
Investigations into wrecks	1,824 55	
Registry of shipping	607 23	
Tidal service	8,925 33	
Removal of obstructions in navigable waters	1,325 25	
Winter mail service	8,835 86	
Marine biological service	1,998 85	
Export cattle trade	3,321 23	
Unforeseen expenses	3,490 29	
New life saving station Long Point	1,780 52	
		496,220 17
Lighthouse and Coast—		
Salaries and allowances of lightkeepers	218,980 46	
Agencies, rents and contingencies	16,096 81	
Maintenance and repairs to lighthouses, &c	290,052 47	
Construction of lights	117,023 95	
" Lower Traverse	31,595 09	
" middle ground, Pelee Passage	10,095 05	
Signal service	6,452 56	
Repairs to wharfs	2,824 28	
Salaries extra employees	2,967 35	
		696,088 02
Scientific Institutions, &c.—		
Observatory, Toronto	2,741 09	
Meteorological service	77,406 37	
Hydrographic surveys	25,488 64	
Steamer to replace *Bayfield*	50,000 00	
Building observatory Sulphur mountain	55 00	
		155,691 10
Marine Hospitals—		
Treatment of sick and disabled seamen	51,027 80	
Shipwrecked and distressed seamen	799 33	
		51,827 13
Steamboat Inspection—		27,493 80
Charles Morrison, back pay	223 00	
W. H. Smith, travelling expenses	3,691 69	
R. H. and Chas. Neal, gratuity to sons of Chas. Neal	136 85	
		4,051 54
Civil government—salaries	61,183 32	
" " contingencies	9,063 00	
		70,246 32
Total Marine, carried forward		1,501,618 08

GENERAL SUMMARY of Expenditure for Fiscal Year ended June 30, 1902—*Concluded.*

Service.	Amount.	Total.
	$ cts.	$ cts.
Brought forward total Marine		1,501,618 08
FISHERIES.		
Salaries and disbursements of fishery overseers, &c	104,880 41	
Fish breeding	79,891 85	
Fisheries protection service	114,011 78	
Building fishways, &c	928 12	
Legal and incidental expenses	6,184 55	
Fishery exhibit	1,753 82	
Distributing fishing bounty	4,564 43	
Oyster culture	6,419 26	
Cold storage	11,671 30	
Construction of steamer for customs and fisheries in British Columbia	38,711 91	
Legal expenses *re* seizure of sealing vessels by Russian cruisers in North Pacific	2,936 88	
Issuing licenses to United States vessels	472 20	
Fisheries biological laboratory	1,482 15	
J. and C. Noble, $15,563.00, and McCarthy, Osler, Hoskins & Creelman, $3,000	18,563 00	
David Creed	200 00	
Behring sea award	605 05	
Fisheries revenue	50 50	
Gratuities to widow of J. Newman, $150.00; widow of R. R. Hogg, $150.00	300 00	
		393,627 21
Total Marine and Fisheries		1,895,245 29

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

A. W. OWEN,
Accountant.

APPENDIX No. 2.

STATEMENT of Revenue of Marine and Fisheries Department for Fiscal Year ended June 30, 1902.

Service.	——	Refunds.	Amount.
	$ cts.	$ cts.	$ cts.
Harbours, piers and wharfs	14,662 28	178 09	14,484 19
Dominion steamers	11,308 65	1 00	11,307 65
Examinations (masters and mates)			5,288 52
Fines and forfeitures	344 61	167 86	176 75
Steamboat inspection fund			37,428 92
" engineers' certificates			910 00
" inspection of barges			120 00
Sick mariners' fund	66,115 09	261 26	65,853 83
Marine registry searches			48 94
Signal station service			2,800 66
Shipping forms			24 00
Casual revenue, sundries	10,175 96	12 00	10,163 96
			148,607 42
FISHERIES.			
Ontario			373 42
Quebec			2,498 85
Nova Scotia	6,084 65	22 50	6,062 15
New Brunswick			11,658 34
Prince Edward Island	1,843 45	4 00	1,839 45
Manitoba			2,279 00
Northwest Territories	950 07	4 00	946 07
British Columbia			41,178 65
Yukon Territory	1,130 00	20 00	1,110 00
			67,945 93
Licenses to United States fishing vessels			11,223 65
			79,169 58

RECAPITULATION.

Marine revenue	$ 148,607 42
Fisheries "	79,169 58
	$227,777 00

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.

A. W. OWEN,
Accountant.

APPENDIX No. 3.

STATEMENT of Steamboat Inspection Dues collected during the Fiscal Year ended June 30, 1902.

—	Amount.	—	Amount.
Ontario.	$ cts.	*Nova Scotia.*	$ cts.
Amherstburg	36 16	Amherst	25 04
Belleville	62 72	Annapolis	7 56
Brockville	104 36	Baddeck	23 68
Chatham	84 22	Canso	21 80
Collingwood	1,088 80	Digby	24 44
Cornwall	115 20	Halifax	2,923 76
Deseronto	170 60	Kentville	731 28
Fort Erie	21 60	Liverpool	20 96
Fort William	55 36	Lockeport	6 20
Goderich	119 80	Lunenburg	22 36
Hamilton	330 52	North Sydney	351 40
Kingston	1,423 16	Pictou	64 12
Lindsay	175 36	Port Hawkesbury	87 88
Midland	465 20	Sydney	94 12
Morrisburg	57 17	Windsor	29 96
Napanee	20 92	Yarmouth	126 84
Niagara Falls	5 64		4,561 40
Ottawa	1,047 24		
Owen Sound	1,375 00		
Parry Sound	296 12	*Manitoba.*	
Peterboro'	182 00		
Picton	232 84		
Port Arthur	228 50	Brandon	5 56
Prescott	166 44	Winnipeg	374 60
Rat Portage	460 88		380 16
St. Catharines	179 60		
St. Thomas	130 00		
Sarnia	441 20	*British Columbia.*	
Sault Ste Marie	498 28		
Simcoe	36 76		
Stratford	171 64	Kaslo	206 40
Toronto	2,371 72	Nanaimo	8 52
Trenton	26 56	Nelson	698 56
Wallaceburg	31 84	New Westminster	487 76
Windsor	869 64	Vancouver	1,181 72
		Victoria	3,624 04
	13,083 05		6,207 00
Quebec.			
Cookshire	19 16	*Prince Edward Island.*	
Montreal	5,066 44		
Quebec	1,816 12		
St. Johns	54 60	Charlottetown	366 84
Sorel	205 40	Summerside	7 64
Stanstead	62 04		374 48
Three Rivers	222 60		
	7,446 36	*North-west Territories.*	
New Brunswick.			
Chatham	216 84	Calgary	11 40
Dalhousie	87 72	Dawson	1,725 84
Fredericton	28 60	White Horse	1,574 48
Newcastle	48 68		3,311 72
St. John	1,541 07		
St. Stephen	141 84	Grand total	37,428 92
	2,064 75		

APPENDIX No. 4.

METEOROLOGICAL SERVICE.

Meteorological Office,
Toronto, September 30, 1902.

Lt.-Col. F. Gourdeau,
Deputy Minister of Marine and Fisheries,
Ottawa.

Sir,—I have the honour to submit the thirty-first annual report of the Meteorological Servi e of Canada, this report being for the fiscal year July 1, 1901, to June 30, 1902, with Appendices A and B, reports of the St. John and Quebec observatories.

The number of persons in receipt of pay from the Meteorological Service on June 30, for various duties performed in connection therewith was 166. Of this number nineteen are employed in the central office, and with a few others at outside stations devote their whole time to the work, others are occupied in observing during only a portion of each day, and a third portion is employed only to attend to the display of storm signals when notified.

Since the issue of my last annual report the following stations have been opened :

British Columbia.

Cla s II.—Golden, C. E. Hamilton.
" II.—Revelstoke, Fred Fraser (resumed).

North-west Territories.

Class II.—Melford, A. E. Wild.
" II.—Lethbridge, C. B. Bowman.
" II.—Abnerthy, F. M. Auld.
" II.—Duck Lake, A. J. McKenna.
" II.—Threehills Creek, W. E. Culler.
" II.—Bon Accord, J. Schofield.
" III.—Whitewood, Rev. T. N. Harrowell.

Manitoba.

Clas s II.—Oakbank, Alfred Goodridge (from class III).
" II.—Pembina Crossing, R. N. Lea (from class III).
" II.—Almasippi, W. Irvine.

Ontario.

Class II.—St. Catharines, J. S. McCelland.
" II.—Renfrew, W. C. Ewing.
" II.—Gravenhurst, J. H. Elliott, M. D. (Sanitorium).
" Newburgh, P. W. Brown.
" III.—Newburg, P. W. Brown.

The sunshine recorder at Durham has been removed to Gravenhurst and placed in charge of Dr. Elliott.

The following stations from various reasons ceased to report:—Coldwater, Ont., death of observer; Durham, Ont., death of observer; Stouffville, Ont., observer removed; Sherbrooke, Que.

There are now in the Dominion 523 Meteorological stations using instruments which have been supplied by the government. The observers at 245 of these stations take the observations voluntarily, sending regular monthly returns to the central office, and to these persons is due the hearty thanks of the service. At 37 stations, lying chiefly in the far northern territories of Canada, and at lighthouses in the Gulf of St. Lawrence, small gratuities are allowed observers. At 41 stations distributed at nearly equal intervals throughout the Dominion, three or more observations are taken daily and as the observers are paid salaries, promptness and careful attention to duty is insisted upon. From 36 of these stations two reports are daily telegraphed to Toronto to be used in the preparation of the daily weather chart.

CENTRAL OFFICE.

There has been no change in the staff at the central office except that Mr. W. R. Kingsford accepted a commission in the 3rd Mounted Rifles and left for South Africa on April 16, and Miss Ballard has since been employed as Assistant Secretary.

I would again respectfully assure you that the office is undermanned.

In the report I had the honour to make last year the routine work of the office was outlined. There has since been no diminution in the work; on the contrary it has been increased by the addition of several new voluntary reporting stations, the returns from which have to be compiled in the central office, and also by the continued expansion of the forecast and storm signal service.

Being impressed with the importance of bringing the publication of the Annual Climatological Report nearer to date, I have employed some members of the staff to work at it at night in their own homes, and fairly satisfactory progress has been made. I hope before long to be able to publish a volume containing all the rainfall and snowfall observations ever taken in Canada, together with normal values.

The number of publications received in the library during the year was 352; being for the most part annual, quarterly, monthly, weekly and daily reports and periodicals, from the principal astronomical and magnetical observatories of the world.

The Annual Climatological Reports for the years 1898 and 1899 were issued during this year, and 860 copies of each were widely distributed in the various countries. Eight hundred and thirty-nine copies of the Monthly Weather Review and 839 copies of the Toronto General Meteorological Register were also distributed to persons in Canada and the United States each month, and 90 copies of the Daily Weather Chart were distributed each day.

I would summarize the work of the central office as follows:—

The receiving by telegraph twice each day of the reports from 36 Canadian stations and also from an average of 60 United States stations furnished through the courtesy of the Chief of the U.S. Weather Bureau.

The preparation of synchronous daily meteorological charts on which to base the forecasts, also preparation of a stencil for duplicating this map and finally printing off 90 copies each day.

The issue of storm warnings to 69 signal display stations in various parts of the Dominion, and the issue of bi-daily forecasts for all parts of the Dominion lying between Assiniboia Territory and Cape Breton.

The checking over the weekly and monthly returns received from every Meteorological station in the Dominion, and in most instances adding up and meaning the columns of figures representing barometer and temperature readings, rainfall, humidity, &c.

The preparation of a monthly weather chart within three days of the close of each month; the preparation of letter press and tables of mean monthly values of every

Meteorological reporting station in the Dominion, for the Monthly Weather Review; the preparation of tables of monthly and annual mean values for an Annual Climatological Report, a quarto volume of nearly 400 pages.

Supplying instruments and apparatus, including barometers, thermometers, wind vanes and anemometers, rain gauges &c., also storm signals and lantern supplies as required to all Meteorological and Storm Signal Stations in the Dominion. All instruments are tested at the Central Office before being sent out and all stationery, forms and bulletin blanks are distributed from this office. All thermometer screens are put together in the Central Office work shop.

The Magnetic Observatory at Agincourt is kept in operation by the director of the Meteorological Service, assisted chiefly by Mr. Menzies and Mr. Young; absolute determinations of the magnetic elements are made weekly.

A regular time service is in operation and time signals are sent out each day at 11.55 a.m.

Sunspots are charted each day when visible.

A Seismograph for registering earthquakes, whether felt or unfelt, is kept in operation; the photographic paper on which record is obtained is developed at the Central Office, and measurements of seismic records obtained at both Toronto and Victoria, B.C., are made at Toronto; results are tabulated and copies sent to the office of the Central Seismological Committee of the British Association.

All photographic records from the meteorological and magnetic instruments at Toronto and Agincourt are developed at the Central Office and results tabulated.

I would respectfully request that additional accommodation be provided for the staff in the Central Office. The officers and many of the 18 assistants are cramped for room in the performance of their duties, and beyond this, meteorological and climatic records are steadily accumulating, and it is even now a problem to find shelving for them. I would therefore suggest that the Main Observatory building have a story added to it, and that the tower be raised proportionately in order to preserve the architectural symmetry of the building.

The attention of the department is again respectfully drawn to the exceedingly low scale of salaries in the Meteorological Office, and I would respectfully point out that several of my assistants, men who are thoroughly good clerks and computers, are drawing salaries of less than $600 per annum, which, since the cost of living in the cities has so materially increased is only enough to provide for the barest necessaries of life.

TABLE II.—METEOROLOGICAL SERVICE—Number of Forecasts and percentage of fulfilment under each district, in each month and in the year, July, 1901, to end of June, 1902, inclusive.

Month.	Manitoba.					Lake Superior.					Georgian Bay.					Lower Lake Region.					Ottawa Valley.				
	Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.			
		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.
1901.																									
July	84	56	19	9	78·0	114	83	19	12	81·1	127	93	19	15	80·7	128	101	22	5	87·5	114	92	13	9	86·4
August	96	87	6	3	93·8	117	100	15	2	91·9	128	107	15	6	89·5	130	110	16	4	90·8	106	85	10	11	84·9
September	91	72	10	9	84·6	106	84	16	6	86·8	111	100	5	6	92·3	111	98	6	7	91·0	103	92	7	4	92·7
October	102	88	6	8	89·2	116	81	26	9	81·0	129	104	15	10	86·4	129	109	14	6	89·9	121	92	23	6	85·5
November	81	63	13	5	85·8	121	103	11	7	89·7	115	97	12	6	89·6	115	101	9	5	91·7	106	80	18	8	84·0
December	85	60	12	13	77·6	106	90	11	5	90·0	110	92	10	8	88·2	110	94	12	4	90·9	96	83	9	4	91·1
1902.																									
January	86	77	6	3	93·0	91	76	12	3	90·1	103	93	6	4	93·2	103	90	9	4	91·7	99	83	10	6	88·9
February	83	60	16	7	81·9	89	71	15	3	88·2	105	88	12	5	89·5	105	94	8	3	93·3	100	83	12	5	89·0
March	87	71	9	7	86·8	95	72	11	12	81·6	98	80	12	6	87·8	99	83	10	6	88·9	94	75	10	9	85·1
April	88	60	19	9	79·0	103	90	10	3	92·2	113	92	11	10	86·3	117	101	7	9	89·3	99	78	12	9	84·8
May	82	70	10	2	91·5	110	86	15	9	85·0	105	78	21	6	84·3	105	87	14	4	89·5	104	71	22	8	82·7
June	87	66	18	3	86·2	111	73	27	11	77·9	123	100	17	6	88·2	123	102	20	1	91·0	107	86	12	9	86·0
Total	1,052	830	144	78	85·8	1,279	1009	188	82	86·2	1,367	1,124	185	88	88·9	1,375	1,170	147	58	90·4	1,249	1,003	158	88	86·6

TABLE II.—METEOROLOGICAL SERVICE—Number of Forecasts and percentage of Fulfilments in each District, in each Month and in the Year, July, 1901, to end June, 1902, inclusive.

Month.	Upper St. Lawrence Valley.					Lower St. Lawrence Valley.					Gulf.					Maritime Provinces—West.					Maritime Provinces—East.					Total.				
	Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.				Number of Forecasts.	Verified.			
		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.		Number fully.	Number partly.	Number not.	Percentage.
1901.																														
July	114	90	17	7	86·4	112	87	17	8	85·3	115	88	18	9	84·3	117	87	15	15	80·8	119	84	16	19	77·3	1,141	861	175	108	82·9
August	106	86	11	9	86·3	109	86	15	8	85·8	111	96	10	5	91·0	111	90	13	8	86·9	111	88	15	8	86·0	1,125	935	126	64	88·7
September	103	92	7	4	92·7	102	85	11	6	88·7	102	89	7	6	90·7	107	91	10	6	89·7	107	88	13	6	88·3	1,043	891	92	60	89·8
October	122	98	18	6	87·7	116	97	15	4	90·1	116	96	18	2	90·5	122	105	16	1	92·6	120	104	13	3	92·1	1,193	974	164	55	88·5
November	106	83	18	5	86·8	105	79	18	8	83·8	112	85	16	11	83·0	108	87	11	10	85·6	109	84	15	10	83·9	1,078	862	141	75	86·5
December	96	83	9	4	91·1	102	89	8	5	91·2	102	82	15	5	87·7	110	90	11	9	86·8	110	89	12	9	86·1	1,027	852	109	66	88·3
1902.																														
January	99	86	8	5	90·9	97	83	9	5	90·2	109	93	12	4	90·8	120	102	15	3	91·3	120	104	12	4	91·7	1,027	887	99	41	91·2
February	100	87	8	5	91·0	102	87	7	8	89·2	103	80	13	10	84·0	107	91	8	8	88·8	108	89	8	11	86·1	1,002	830	107	65	88·2
March	97	78	12	7	86·6	106	83	12	11	84·0	103	77	16	10	82·5	112	84	14	14	81·2	112	82	17	13	80·8	1,003	785	123	95	84·4
April	101	79	11	11	83·7	105	86	15	10	83·3	103	75	15	13	80·1	103	81	15	7	85·9	104	83	13	8	86·0	1,036	819	128	89	85·2
May	104	76	19	9	82·2	101	77	18	6	85·1	106	76	22	8	82·0	115	86	21	8	83·9	116	83	21	12	80·6	1,048	793	183	72	84·4
June	107	81	19	7	83·6	102	83	14	5	88·2	105	85	16	4	89·5	111	85	19	7	85·1	110	83	20	7	84·5	1,086	844	182	60	86·1
Totals	1255	1019	157	79	87·4	1259	1016	159	84	87·0	1287	1022	178	87	86·3	1343	1079	168	96	86·6	1346	1061	175	110	85·3	12,812	10,333	1,629	850	87·0

FORECASTS AND STORM SIGNALS.

The number of storm signal display stations in the Dominion is now 72, 38 of which are in Quebec and the maritime provinces, 31 on the Great Lakes and 3 in British Columbia. It is gratifying to be able to state that successful warning was given for all the more important storms which occurred during the year, the signals being duly displayed well in advance at all stations open to navigation. The heaviest of the gales were as follows:—

October 18, the Gulf of St. Lawrence; November 12, the Great Lakes to the Maritime Provinces; November 25, the St. Lawrence Valley and the Maritime Provinces; January 22, the Great Lakes to the Maritime Provinces; January 26, the Great Lakes and the St. Lawrence Valley and the Maritime Provinces; February 17, the St. Lawrence Valley and the Maritime Provinces. It is encouraging to note a few comments in regard to these warnings as follows:—

Halifax reporting on the gale of November 25, says:—'The storm was exceptionally heavy, the warning was ample and several gentlemen have made kind remarks on the excellence of the service both as to the Daily Bulletin and the Storm Signals.' Port Escuminac remarks of the same storm 'It was a grand warning.' In regard to the gale of December 4, the St. John *Daily Telegraph*, under date of December 5, has the following leader:—

Valuable Meteorological Service.

'Year after year the value of the weather forecasts issued by the Dominion Meteorological Service becomes more apparent. While the forecasting of ordinary weather changes are of great utility, it is when violent storms are on the programme that a vital interest is taken, and the successful forecasting of such disturbance is the gauge by which the public measure the usefulness of the service. It would be difficult to estimate the value of property placed in jeopardy by one such storm as occurred yesterday, sweeping our coasts and bays, and it would be more difficult to estimate the amount of life and property saved by the warnings of our Canadian service. Warnings for the storm of yesterday were issued on the previous morning, and storm signals were displayed at all maritime ports. This is but one instance of the ability and alertness of our Canadian forecast officials.'

The St. John *Globe* also under date of February 28, 1902, says as follows:

'In calling attention to the article in to-day's *Globe* on Observatory Time, it may fairly be stated that with this useful service, in addition to the daily forecasts of the weather and warnings of approaching storms—which doubtless have been the means of saving much valuable life and property—the work of the Canadian Meteorological Service may truly be said to be of inestimable value to the country and fully alive to the needs of navigators.'

During the year, 1,522 warnings were issued from Toronto, and of these 1,278, or 84·0 per cent were verified.

The daily forecasts have been disseminated more widly than in previous years. The bulletin issued at 10 p.m., is distributed by the telegraph companies to almost every telegraph office in the Dominion, and published in nearly all the morning newspapers. The bulletin issued at 10 a.m., and which covers the current and following day, has also been widely disseminated and published in most of the afternoon papers, besides being posted in conspicuous places, especially at lake ports and seaports where vessel masters and sailors may conveniently see it. The more extensive bulletin which has been issued each morning for several years to St. John and Halifax, and was commenced in the spring of 1900, at Ottawa, Quebec, Montreal, Hamilton and London, continues to give satisfaction, and applications have been received from Canso, N. S., and Sydney, N. S., that the same information be supplied to those ports.

Application for special temperature forecasts from shippers of perishable goods continue to increase in Toronto and Montreal.

Forecasts for the lower portion of Vancouver Island and the lower mainland of British Columbia have been issued with regularity from Victoria, B. C., and I am pleased to be able to report that a fair degree of accuracy has been maintained.

Inspection of Stations.

During the latter part of the summer of 1901, the director visited the various telegraph stations in the more western and northwestern portions of the Dominion including Dawson City, Yukon. At Port Arthur the Meteorological Station was as usual found in good order. Mr. Cook reported that the daily bulletins are posted outside his office and on the wharf, and that there has been a constantly increasing demand for the meteorological reports. At Medicine Hat the instruments were transferred from Mr. J. K. Drinnan to Mr. Walter Crosskill. This change of observer did not entail any change in the position of the thermometer screen or rain gauge, which still remains in an open space near the river. Mr. Crosskill is likely to prove a capital observer. Calgary, New Westminster, Kamloops, Edmonton, Swift Current, Prince Albert, Winnipeg and White River were visited in turn; where necessary the station barometer was cleaned; various minor alterations were made in the exposure of instruments, and observers instructed in such instances as errors had been noted.

At Banff a choice was made of a site for the new observing station on Sulphur Mountain peak, and a rough preliminary survey was made of the best route for the cable connecting the upper and lower stations. At the time it was thought probable that the trail would be completed early in October, and that the station might be equipped before winter but bad weather and various unforeseen delays prevented anything being done before the beginning of winter. However, the trail had been completed before the end of the financial year and work had been begun on the observatory building. In April, an order for three miles of cable was placed with the London Electric Wire Company, England, and I have to thank Professor Hugh Callendar, of University College, London, for valuable assistance and advice in connection with this matter.

The instruments to be placed at the mountain top and connected electrically with the lower station are a wind-vane and anemometer; a barograph and one thermograph being by M. Richard Frères, Paris, and the other thermograph by Professor Hugh Callendar. In addition to these instruments recording at a distance there will be a barograph and thermograph by M. Richard Frères, each of which will record automatically at the higher station.

Two days were spent at Victoria inspecting the new offices occupied by Mr. E. Baynes Reed and Mr. Denison; and in going over the work of these officers to whom has been deputed the work of furnishing forecast for British Columbia. Mr. Denison is, by means of a sensitive air barometer and tide gauge, investigating the connection between atmospheric waves and secondary undulations on tidal curves in the hope that something may be learnt which will be of practical value in determining the advance of storms from the Pacific.

Dawson City was visited, it being the intention to obtain telegraphic reports from this station just as soon as the telegraph should be opened to British Columbia. Mr. T. A. Stewart has proved a fairly satisfactory observer, but there is no suitable exposure for the thermometers in the neighbourhood of his house, and it has been necessary to place the screen and rain-gauge in anything but a satisfactory position The telegraph line was opened through in December, and since that, a daily report has been received. The observing hour at Dawson corresponding to 8 o'clock morning and evening eastern standard time—the observing hours throughout America—are 3.43 a.m. and p.m. So far it has not been possible to arrange that the former observation be telegraphed until the opening of the telegraph office at 8 o'clock.

Twenty-one stations were inspected by B. C. Webber during the past summer, who reports as follows:—Barometers were cleaned and adjusted at nearly all the stations visited where barometers were in use. Thermometers were also tested and adjusted. At Depot Harbour a suitable site was chosen for the signal mast, arrangements made for its erection, and the agent instructed in the duties required.

At Renfrew, Mr. Ewing was instructed in the duties of observer. At Bissette the anemometer exposure has not proved as satisfactory as was anticipated, the lofty hills on either side in the immediate vicinity apparently affecting the surface winds. At Winnipeg the observing is relegated to the college students, a state of affairs not calculated to ensure good work At Portage la Prairie, at the home for incurables, where the instruments are placed, a patient has been deputed to do the observing, consequently under existing conditions the work is valueless. At Qu'Appelle the new correction for the reduction of the barometer was being applied incorrectly, as had been surmised. At Prince Albert the station barometer was found to be badly leaking and hardly adjustable. Observer still affirms that there is very little wind at this place; the anemometer exposure is fair. The platform carrying the Battleford anemometer was very dilapidated and it has been replaced by a new one. At Edmonton, Mr. Taylor is still unable to attend to the work, and his daughter does the observing. The Calgary barometer was discovered to be badly cracked, and another one had to be substituted; the anemometer structure also required attention. At Banff the trail up Sulphur Mountain to the Observatory has been especially well constructed; it is six feet wide, and can be comfortably traversed on horseback. The thermometers at Golden were not well exposed, and observer seemed doubtful whether he would continue the work gratuitously. At Glacier the work is reluctantly attented to, the thermometer readings are taken from a 'Sixes' instrument suspended from railway station wall and the rain gauge which was under the eaves of a shed was pretty well to pieces. I have given my views in a previous report on the desirability of reliable observations from this point. At Nanaimo an anemometer is not advisable, the work here is conscientiously and well performed. The work at the head office for British Columbia under Mr. E. Baynes Reed continues to be very satisfactory. At Vancouver the time work is not well performed and a general overhauling is necessary. The voluntary observer (Mr. Brown) at this place takes great pains and interest in the weather observations. At Westminster all was in good order. Parry Sound was visited in order to instruct the observer in the new reduction table for the barometer to sea level, as it was found impossible to impart the knowledge by writing. The thermometers here are not well exposed and the rebuilding of the present much worn wind tower would be hardly advisable.

Six stations were inspected by Mr. H. V. Payne. At South West Point, Anticosti Island, the new observer, Mr. E. Lemieux, required full instructions in his work, and was doing his best to perform his duties. The instruments required a general overhauling. At Father Point the barometers required cleaning and anemograph was repaired. The signal lamps do not keep alight properly and jar out. The station on the whole was in good order. At Point Rich, Newfoundland, the instruments were well cared for, but a wind vane and sun-dial were required. At Point Amour, Labrador, instruments were in order and observations well taken; the observer was using magnetic instead of true bearing, in giving direction of wind. At Cape Norman, Newfoundland, a new wind vane was required and the sun-dial was out of level. Observations were fairly taken. At Belle Isle, Newfoundland, the barometer was too dirty to give correct reading and had to be replaced by a new one; the anemometer was broken and new arms were required; the sun-dial was readjusted. A steel tower was recommended for the wind instruments as the old exposure was not satisfactory. Cape Race, Newfoundland, was also visited, it was found well adapted as an observing station, and the keeper was willing to take observations if instruments were supplied.

SEISMOLOGICAL OBSERVATIONS.

The Milne seismographs at Toronto and Victoria, B.C., have been kept in regular operation throughout the year and very satisfactory records obtained. The disturbances have all been tabulated, and copies of all tables together with photographic prints of the more important disturbances have been forwarded to Professor Milne, secretary of the Seismological Committee of the British Association. For the purpose of seismological investigation these will afford very valuable and interesting data when considered

with similar curves from other parts of the world. We have received very favourable comments from Professor Milne as to the excellent nature of the observations supplied from the two Canadian stations.

From June, 1901, to June, 1902, 106 disturbances have been recorded at Victoria and 82 at Toronto. The principal ones of the series occurred on—

August 9th.
October 8th.
November 14th—20th.
December 9th—31st.
January 1st—24th, 1902.
February 17th.
March 22nd.
April 19th.

The disturbances of August 9 originated in Japan and the swing of the Victoria pendulum was 30 millimetres. The preliminary tremors travelled in six minutes between Victoria and Toronto. Coincident with the earthquake in Japan came a tidal wave which swept in on the Hawaiian coast. It attained a height of 5 feet greater than the usual high water mark. The disturbance of April 19th was particularly marked. The Toronto record shows the vibration to have passed completely across the ribbon of photographic paper, indicating a swing of over 25 millimeters, the Victoria pendulum swinging 16 millimeters and the magnets at the Agincourt Observatory were set in vibration by the earth billows. This earthquake was central in Guatemala and resulted in large loss of life and property. Quesaltenango the second city of importance in Guatemala and having a population of 25,000 was reduced to ruins and 500 lives were lost.

Time Service.

During the year ending June 30, 1902, sixty meridian observations for time were made with the transit instrument and five solar observations were taken. The positions of the stars used were those given in the 'Berliner Jahrbuch.' The usual determinations of the collimation error of the transit instrument have been made by micrometrical measurements of the collimating telescope and by reversals on Polaris. The azimuth level and collimation errors have remained very steady throughout the year giving a convincing proof of the substantial mounting of the transit instrument.

—	Toronto.	Montreal.	Quebec.	St. John.
1901.	"	"	"	"
July 12	0·00	0·00	+ 0·27	+ 1·13
" 26	+ 0·36	— 0·36	+ 0·74	+ 1·22
Aug. 16	— 0·12	+ 0·12	— 0·04	+ 1·05
Sept. 6	+ 0·28	— 0·28	+ 0·24	+ 0·44
" 20	— 0·20	+ 0·20	+ 0·33	+ 0·94
Oct. 4	+ 0·26	— 0·26	+ 0·21	+ 0·48
" 18	+ 0·13	— 0·13	+ 0·28	+ 1·28
Nov. 15	+ 0·18	— 0·18	+ 3·97	+ 1·05
" 29	— 0·38	+ 0·38	+ 0·04	— 0·13
Dec. 13			+ 0·88	+ 0·69
1902.				
Jan. 10			+ 0·69	
" 31	— 0·18	+ 0·18	— 0·48	+ 1·17
Feb. 14	— 0·12	+ 0·12	— 0·68	+ 1·32
Mar. 7	+ 0·16	— 0·16	— 0·23	+ 0·85
" 21	+ 0·06	— 0·06	+ 0·23	+ 1·00
Apr. 11	+ 0·09	— 0·09	+ 0·36	+ 1·05
" 25	— 0·02	+ 0·02	+ 0·36	+ 0·57
May 16	+ 0·05	— 0·05	+ 0·02	
" 30	+ 0·04	— 0·04	— 0·84	+ 0·03
June 18	— 0·29	+ 0·29	— 1·28	+ 0·10

The time exchanges with Montreal, Quebec and St. John have all been registered on the chronograph at Toronto. The errors of the Toronto clock and of time on the time-pieces used by the different observatories elsewhere are computed from the latest observations. The mean time clock of the Toronto Observatory has continued to show absolute standard time of the 75th meridian. The means of keeping it to this adjustment has been described in the Annual Report for 1899. The different electrical attachments to this clock and the sidereal clock have given great satisfaction. Time has been given weekly to the Magnetical Observatory at Agincourt. The time service under control of the Meteorological Service comprises in addition to the striking of the fire alarm bells in Toronto at 11.55 a.m. daily, the dropping of the time balls at Quebec and St. John and the firing of a gun at Vancouver. The following table shows the difference between the time by 'Standard Observer' and that given at the various exchanges. The sign indicates that the time as sent from the various observatories is faster than by 'Standard Observer.' The arithmetical means of the times determined at Toronto and Montreal is the time by 'Standard Observer.' There can be little doubt that the constant positive difference between 'Standard Observer' and St. John, indicates that we are using an erroneous longitude for that city and that no fault lies with the observer. It is proposed very shortly, as soon as a new transit instrument shall have been installed, to redetermine its longitude.

Sunspot Observations.

Sunspot observations have been continued as usual throughout the year. These observations are made by projecting the image of the sun upon paper, the equatorial telescope driven by clock-work being used. Maps of the sun's surface are thus made about four inches in diameter showing well the spots and faculæ markings. One hundred and thirty-eight observations were made, and on one hundred and fourteen days the sun was observed with no spots. The periods of no sunspots were as follows:—

1901—June 29 to July 22	23	days.
" July 25 to October 3	71	"
" October 14 to October 26	12	"
" November 26 to January 3	38	"
1902—January 15 to March 1	46	"
" March 14 to May 22	70	"
" June 4 to June 30	27	"

From November 26 a most decided sunspot minimum occurred.
All of which is respectfully submitted.

I have the honour to be, sir,
Your obedient servant,

R. F. STUPART,
Director.

APPENDIX A.

QUEBEC, August, 1902.

To the Director,
Meteorological Service,
Toronto.

SIR,—I have the honour to transmit my annual report for the fiscal year ending June 30, 1902.

The correct standard time was given daily as formerly, and several chronometers were rated at this observatory during the navigation season.

The time-ball was dropped for the first time this year on April 10, and it is in good working order.

The weather bulletin has been regularly distributed and frequent inquiries respecting the probable state of the weather were made at this observatory, especially during the summer season.

All the meteorological ob ervations were taken daily as heretofore.

I have the honour to be, sir,
Your obedient servant,

(Sgd) ARTHUR SMITH,
Director.

APPENDIX B.

ST. JOHN OBSERVATORY,
ST. JOHN, N.B., October 10, 1902.

R. F. STUPART, Esq.,
Director Canadian Meteorological Service,
Toronto, Ont.

SIR,—I have the honour to present the annual report upon the work of the St. John Observatory for the fiscal year ending June 30, 1902.

The meteorological work has been continued with but little change from former reports. A tipping bucket rain-gauge and electric register was received in August and at once installed, the first automatic record was made on the 15th of that month. Continuous records of the time, amount and rate of rainfall are now electrically registered by this instrument.

The morning weather bulletins from Toronto are of increasing value and importance to mariners, shippers and others having business interests that are affected by weather changes. The bulletin is issued as rapidly as possible after receipt of the telegraph message is posted, distributed and published by all of our daily papers as formerly reported. Special telephone reports are frequently requested, and in this way the forecasts and prevailing conditions over the greater portion of the continent are immediately available before the bulletin can be issued.

The morning forecasts and all storm warnings are promptly telephoned to St. Martins, the forecasts are posted in the telephone exchange and the storm signals

displayed at the lighthouse near the entrance to that port for the use of local mariners, as well as the shipping in that portion of the Bay of Fundy. A considerable portion of my time is taken up in answering inquiries from the press and public, and numerous demands are made for information from the observatory records.

The time service has received careful attention and observations of stars for determination of the errors and rates of the standard sidereal clock were made as often as the weather would permit Owing to the adoption of standard time of the 60th meridian the time-ball has been dropped by that standard since of June 15, last, and the mean-time transmitting clock since the above date has been adjusted to show standard time on the 60th meridian.

Both clocks have been giving satisfactory service and the automatic system of clock signals which are daily telegraphed over the greater portion of the Maritime Provinces are practically used as the standard for this portion of the Dominion. Special time signals are quite frequently asked for from navigators and others.

I have the honour to be, sir,
Your obedient servant,

D. L. HUTCHINSON,
Director St. John Observatory.

MAGNETIC OBSERVATORY.

Lieut.-Colonel F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the following report in connection with the Magnetic Observatory at Agincourt.

Photographic records of declination and horizontal force have been continued throughout the year, also thermographic records of the temperature of the basement. Hourly measurements of these curves have been tabulated showing hourly, daily and monthly means, also daily maxima and mimima and times of the occurrence of the same. Check observations to these curves have been taken at stated times by means of auxiliary scale readings, and comparisons made. Daily comparisons of the clock regulating the time intervals of the curves have been made with a chronometer, and the daily rate and error recorded. A weekly telegraphic time exchange with Toronto has shown satisfactory rates.

The absolute determinations of declination, inclination and horizontal force have been carried on and comparisons made, by simultaneous readings with the differential instruments for constancy of zeros. Tabular information has at various times been compiled for those requesting the same.

About fifty hours of the photographic records have been missed through the stoppage of the driving clock and failure of coal-oil lights. The principal loss has been through stoppage of the clock. This clock has been doing continuous duty for more than fifty years and therefore is somewhat worn. The loss of record from this cause is approximately 0·5 per cent per annum.

Continuous records of velocity and direction of wind by electrical anemograph; a daily record of maximum and minimum temperatures; three incidental observations for temperature, state of weather, &c, and the amount of precipitation have been maintained throughout the year.

Synopsis of Magnetic Conditions.

July.—A considerable disturbance set in at 20 o'clock of the 11th, continuing to 2 o'clock of the 13th, showing amplitude of 19 minutes for Declination and 30 millimetres for Horizontal force. The magnets were lightly disturbed from 16th to 22nd. The generality of days exhibited small uneasy movements.

August.—A disturbance of some magnitude occurred from 2 o'clock of 14th to 21 o'clock of 16th. Amplitudes 31 minutes and 23 millimetres respectively for Declination and Force. With exception of small movement on afternoon of 31st and the before mentioned disturbance, the month was comparatively quiet.

September.—A disturbance which commenced at 6 o'clock on the 9th continued until 20 o'clock of 11th showing some sharp movements. Amplitudes 37 minutes and 18 millimetres. The balance of the month was quiet with the exception of small movements from 9 o'clock of 16th to midnight of 17th.

October.—A medium disturbance from 0 o'clock of 8th to 7 o'clock of 9th showed amplitudes of 29 minutes and 18 millimetres ; slightly disturbed from 22 o'clock of 12th to 22 o'clock of 13th, with continuous uneasiness to 23 o'clock of 16th. Uneasy and disturbed from 4 o'clock of 24th to midnight of 25th.

November.—Lightly disturbed from 11 o'clock of 3rd to midnight of 5th. Uneasy movements at intervals from 7th to 11th inclusive. A small disturbance from 2 o'clock of 19th continued 24 hours. Balance of month quiet.

December.—A small disturbance from 22 o'clock of 1st to 21 o'clock of 2nd. Uneasy movements from 7th to 9th. A disturbance from 11 o'clock of 27th to 20 o'clock of 28th, showed amplitudes of 16 minutes and 24 millimetres. Uneasy on 29th.

January.—Uneasy 2nd to 4th inclusive. Disturbance from 8 o'clock of 15th to 20 o'clock of 17th, 27 minutes and 20 millimetres. Uneasy 24th and 25th.

February.—Disturbed and uneasy from 0 o'clock of 7th to noon of 12th and continued unrest to midnight of 16th. Disturbed from 5 o'clock of 20th to noon of 21st and from noon of 24th to 9 o'clock of 26th. This month was the most continuously perturbed of the year but with small movements.

March.—Uneasy during afternoon of 5th and 6th and morning of 8th. Disturbed from noon of 11th to 4 o'clock of 12th showing sharp decrease of Force at 16h.10m o'clock. Uneasy afternoon of 17th. Disturbed from 9 o'clock of 22nd to 23 o'clock of 24th remaining continuously uneasy to 4 o'clock of 26th.

April.—Continuous state of unrest from 1st to 4th. Uneasy 8th and 9th continuing to midnight of 11th, the largest movement occurring from 20 o'clock of 10th to 11 o'clock of 11th. Amplitudes of 56 minutes and 55 millimetres respectively of Declination and H Force. (Guatamala earthquake was shown on traces of 18th more markedly on Bifilar curve, it being very quiet.) Magnets were uneasy and disturbed from 20 o'clock of 20th to midnight of 23rd.

May.—Disturbance set in at 7 o'clock of the 8th and continued to midnight of 9th. Amplitudes of 31 minutes and 32 millimetres. Uneasy during the afternoons from 20th to 31st.

June.—Uneasy afternoon of 5th, 6th and 7th. Small disturbances of afternoons of 9th and 10th. Uneasy 11th to 19th. Light disturbances on 2 to 19 o'clock of 22nd. Uneasy on afternoons of days from 24th to 30th. This month exhibited state of restlessness during hours from noon to midnight of most days.

I have the honour to be, sir,
Your obedient servant,

R. F. STUPART,
Director.

APPENDIX No. 5.

SIGNAL SERVICE, CANADA.

OFFICE OF THE SUPERINTENDENT,
QUEBEC, October 15, 1902.

Lieut.-Colonel F. GOURDEAU,
Deputy Minister Marine and Fisheries,
Ottawa.

SIR,—I have the honour to forward herewith the annual report for the signal service for the year ending June 30, 1902.

I have the honour to be, sir,
Your obedient servant,

J. U. GREGORY,
Agent, Department of Marine and Fisheries.

SIGNAL SERVICE.

QUEBEC, October 15, 1902.

As in preceding seasons, reports have been received from the stations in the lower part of the river and gulf, recording the weather, wind, condition, location and movement of the ice during the winter and spring months, and during the season of navigation all inward and outward bound vessels as signalled when passing each station, including the Straits of Belle Isle.

From the 1st to the 20th of April, three reports per week were obtained and forwarded to the Boards of Trade, Montreal, St. John, N.B., and Quebec, and to the Chamber of Commerce, Halifax, N.S., also to the press of Montreal and Quebec, to the agent of the department, Quebec, to the custom-house and immigration agent, to the agents of steamship lines, tug owners, to the pilots for below and above Quebec, also to Messrs. Henry Fry & Co., Lloyds agents, Quebec.

From April 21 reports were received daily and forwarded as above.

The Chief Superintendent of the Quarantine station at Grosse Isle is also supplied with full information as to the weather, wind, and the incoming of all transatlantic or foreign vessels.

Information was supplied from the bureau here as in past seasons, to the agents at Anticosti, Magdalen Islands, Meat Cove, C.B., Cape Ray and Cape Race, Newfounland, from April 13 as to weather, wind, movement and condition of the ice in the Gulf and River St. Lawrence up to Montreal, for the guidance of any vessel calling for information.

The Quarantine doctor at Rimouski is also supplied with a report of the incoming mail steamers, name of station and hour of passing being given when vessel was first signalled.

Information as to wind, weather and ice in the vicinity of Anticosti, Magdalen Islands, Meat Cove, St. Paul's Island and Cape Ray, Newfoundland, is also sent to Pointe aux Esquimaux in March for the guidance of the sealing fleet.

All reports received of inward bound vessels were repeated to the pilot station at Father Point, so that pilots could be promptly advised of the locality of inward bound vessels.

NAVIGATION—PORT OF QUEBEC.

Last Outward Bound Vessels—1901.

November 17, 1901.—The last Royal Mail steamer, the SS. *Corinthian* sailed on this date.

November 27, 1901.—The SS. *Mexican*, SS. *Laconia* and the SS. *Banana* sailed on this date.

December 2, 1902.—The SS. *Alf* and the SS. *Agnar* sailed on this date, last steamers to leave.

First Inward Bound Vessels—1902.

April 13, 1902.—The SS. *Fremona* arrived on this date ; first steamer to arrive.

April 17, 1902.—The SS. *Alderney* arrived on this date.

April 19, 1902.—The SS. *Mora* arrived on this date.

April 29, 1902.—The SS. *Jacona* arrived on this date.

April 26, 1902.—The Royal Mail steamer *Parisian* arrived on this date ; first mail steamer to arrive.

I have the honour to be, sir,
Your obedient servant,

J. U. GREGORY,
Agent, Department of Marine and Fisheries.

APPENDIX A.

Report on ice &c., in the Straits of Belle Isle and Coast of Newfoundland, as noted by the Agents of the Department at Belle Isle, Cape Bauld, Cape Norman and Point Amour.

Belle Isle.

December, 1901.—No ice was seen this month, very mild weather and strong north-west and west winds prevailed.

January, 1902.—Vessels could have navigated the straits without difficulty ; very little ice made its appearance, north and north-west winds mostly prevailing.

February, 1902.—The first week of this month was very cold, and some heavy sheet ice made its appearance. The balance of the month was very mild and very little ice was seen North and north-east winds mostly prevailed.

March, 1902.—The first part of this month, vessels could have passed through the straits without difficulty, the weather was rather mild. The latter part of the month the straits filled with heavy northern ice, gales of north and north-east winds prevailed.

April, 1902.—The straits were blocked with heavy ice until about the 25th of the month, then strong gales of west wind cleared the straits entirely, and from that date on, there was no ice to impede navigation.

Cape Bauld, Newfoundland.

As stated in previous reports, the distance from Belle Isle being but 14 miles, the observations as to wind, weather &c., vary but little with the latter place.

December 14, 1901.—First slob ice made its appearance, hardly any ice was seen this month and no snow fell.

January, 1902.—Very little ice was seen in the first half of this month, the weather being very mild, the latter part being rather cold.

April, 1902.—Several sealing steamers were seen this month and also some schooners.

Cape Norman, Newfoundland.

October, 1901.—First snow fell on the 19th instant; snow fell on three occasions this month; about 4 icebergs seen daily.

November, 1901.—Snow fell on four occasions this month, and about 4 icebergs were seen daily.

December 7, 1901.—First ice made its appearance on this date; snow fell on several occasions; about 5 icebergs seen daily.

January, 1902.—From the 10th to the end of the month, snow fell almost daily in very large quantities; about two icebergs were seen daily.

March, 1902.—No snow fell this month; very fine weather prevailed, close packed ice everywhere, about 9 icebergs seen daily.

Point Amour.

January 5, 1902.—Some small strings of slob ice made its appearance on this date, first seen.

January 11, 1902.—Straits clear, no ice to be seen.

January 27, 1902.—Straits full of light open ice, no difficulty for vessels to pass through.

February, 1902.—From the 1st to the 10th of this month the strait was full of pan ice, from six to eight inches thick; from the 15th to the end of the month the ice was all broken up, and vessels could have passed through without much difficulty.

March, 1902.—The strait was full of heavy close packed ice the most of the month; from the 15th to the end of the month, about 15 icebergs were seen daily. On the 15th the sealing steamer *Algerine* passed outward. On the 19th the sealing steamer *Panther* past outward jammed in the ice. On the 22nd the sealing steamer *Newfoundland* passed inward. On the 23rd a schooner passed here jammed in the ice.

APPENDIX B.

THERMOMETER readings at Belle Isle from December, 1901, to April, 1902.

Date.	December, 1901.			January, 1902.			February, 1902.			March, 1902.			April, 1902.		
	9 a.m.	Noon.	6 p.m.	9 a.m.	Noon.	6 p.m.	9 a.m	Noon	6 p.m.	9 a.m.	Noon	6 p.m.	9 a.m.	Noon.	6 p.m.
1	26	24	20	20	25	26	*4*	*5*	*3*	20	24	32	29	32	32
2	13	15	18	26	25	24	*4*	0	6	32	32	32	28	30	31
3	17	16	18	20	24	22	15	26	29	28	25	30	32	31	30
4	18	20	22	22	22	20	30	32	33	32	30	31	23	30	18
5	20	18	18	18	15	16	32	35	33	31	27	30	12	10	12
6	13	16	18	10	6	*3*	34	35	31	16	10	*5*	10	32	20
7	7	10	15	7	12	15	34	33	30	*8*	*3*	10	13	26	21
8	20	22	20	16	18	16	32	34	33	15	12	10	20	27	31
9	20	26	28	18	20	20	33	31	33	3	8	8	20	31	25
10	26	29	34	20	22	24	31	36	30	10	13	15	21	32	27
11	15	18	10	20	26	25	30	30	29	16	20	24	29	35	29
12	8	15	15	22	36	32	29	32	27	34	32	31	26	34	32
13	24	26	26	30	31	27	22	26	21	26	24	18	30	34	31
14	30	32	30	24	20	10	23	25	30	10	15	15	31	34	30
15	29	30	32	9	5	4	27	27	20	15	18	16	31	35	32
16	32	34	34	4	10	10	15	16	12	20	32	27	27	36	31
17	20	21	18	15	20	10	10	18	18	26	34	25	31	36	32
18	21	18	18	0	5	10	22	26	30	32	38	34	25	33	31
19	16	20	14	13	21	0	32	32	32	32	36	34	31	33	30
20	13	15	10	*10*	*11*	*3*	30	28	30	34	36	36	30	32	31
21	10	16	8	16	22	24	13	12	10	32	34	34	31	37	30
22	3	2	10	18	20	20	10	15	18	31	25	30	30	34	32
23	17	19	22	22	24	33	12	20	16	30	32	31	31	36	31
24	22	25	30	35	33	30	10	15	13	29	30	30	32	38	31
25	32	32	31	16	10	5	13	19	16	25	28	30	31	34	30
26	20	19	17	*3*	4	8	11	20	22	36	32	31	24	30	25
27	19	22	21	15	20	24	30	35	33	26	31	30	24	32	30
28	14	18	26	18	5	7	20	18	16	23	34	30	29	34	31
29	20	25	26	*1*	4	0	.....	.....	.....	23	35	30	30	39	31
30	26	28	24	*6*	0	*5*	..	....	.....	21	32	31	29	33	27
31	20	24	22	*13*	10	*5*	..	.....	.....	22	30	29	.....	.....	.....

NOTE.—The figures that are in italic denote below zero.

PORT OF HALIFAX, N.S.,

Particulars of Vessels Signalled during

Year and Month.	English Men-of-War and Troopers.			Foreign Men-of-War.			Steamers, 1st Class.			Steamers, 2nd Class.		
	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
1901.												
July	1	1	0	1	1	0	34	31	3	77	74	3
August	9	9	0	1	1	0	21	17	4	81	74	7
September	7	7	0	1	1	0	18	15	3	53	51	2
October	6	6	0	0	0	0	21	19	2	59	56	3
November	2	2	0	0	0	0	24	23	1	66	63	3
December	0	0	0	0	0	0	41	37	4	46	42	4
1902.												
January	2	2	0	0	0	0	24	24	0	56	48	8
February	0	0	0	0	0	0	32	30	2	36	34	2
March	1	1	0	0	0	0	30	26	4	46	45	1
April	5	5	0	0	0	0	39	35	4	48	45	3
May	2	2	0	1	1	1	30	27	3	47	44	3
June	1	1	0	0	0	0	33	29	4	57	52	5
Totals	36	36	0	4	4	0	347	313	34	672	628	44

SIGNAL SERVICE.

the Year ending June 30, 1902.

Ships.			Barques.			Barquentines.			Brigs.			Brigantines.			Schooners, 3-masted or Wearing Private Signals.			Monthly Totals.		
Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.	Reported.	Arrived.	Passed.
0	0	0	8	8	0	2	2	0	3	3	0	0	0	0	8	8	0	134	128	6
0	0	0	3	3	0	3	3	0	3	3	0	0	0	0	8	8	0	129	118	11
0	0	0	3	3	0	0	0	0	2	2	0	0	0	0	5	5	0	89	84	5
0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	13	12	1	101	95	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	95	91	4
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	2	0	90	82	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	83	75	8
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	70	65	5
0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	79	73	6
0	0	0	3	3	0	2	1	1	0	0	0	0	0	0	0	0	0	97	89	8
0	0	0	2	2	0	1	1	0	1	1	0	0	0	0	3	3	0	87	81	6
0	0	0	5	5	0	2	2	0	0	0	0	0	0	0	2	2	0	100	91	9
0	0	0	26	26	0	11	10	1	9	9	0	2	1	1	47	45	2	1154	1072	82

(Sgd.) R. E. MACRORY, Lieut., R. E.
Superintendent of Signals.

APPENDIX No. 6.

LIVE STOCK SHIPMENTS.

RECORD of Live Stock shipped from Port of Montreal during the Month of May, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees Collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
1	April 30	Roman	Liverpool	178				695									28
2	May 1	Tremona	London					92									4
3	" 4	Montevidean	"					242									10
4	" 4	Memnon	Bristol	39				301									12
5	" 6	Manr. Commerce	Manchester					330									14
6	" 8	Sarmatian	Glasgow	42				242			17						11
7	" 10	Montcalm	Bristol					350									14
8	" 10	Yoruba	London					197									8
9	" 11	Manxman	Liverpool					518									21
10	" 12	Marina	Glasgow					238			17						11
11	" 13	Cervona	London					396			13						17
12	" 14	Livonian	Liverpool & Glasgow				335 / 128	463			36						21
13	" 15	Manr. City	Manchester					627									24
14	" 17	Brazilian	London					461									18
15	" 17	Pretovian	Liverpool					482									19
16	" 17	Lakonia	Glasgow	156				249			58						13
17	" 18	Montfort	Bristol					350									14
18	" 18	Bellona	Newcastle					275									11
19	" 18	Inkerman	London					523									21
20	" 20	Lycia	"					300									12
21	" 22	Lake Champlain	Liverpool					339									14
22	" 23	Rosarian	London					429									17
23	" 24	Kastalia	Glasgow	15				295									12
24	" 24	Kildona	London					297									12
25	" 25	Loango	Bristol					180									6
26	" 25	Escalona	Newcastle					160									6
27	" 29	Lake Ontario	Liverpool					456									19

28	"	29	Pomeranian	Glasgow					302													12
29	"	30	Alcides	"	106				301			17										13
			Total for May		536				10,090			158					2,685,110		748,715			415
36			Same date, 1901		8,454				11,332			292										
31			" 1900		2,314				11,426			727										
36			" 1899		3,365				12,983			674										
46			" 1898		309				15,563			1,669										

POPE & MORGAN,
Inspector.

MONTREAL, May 31, 1902.

Record of Live Stock shipped from Port of Montreal during Month of June, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees Collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
30	June 1.	Roman	Liverpool	643	....	.....	.....	701	....	.....	.....	....	.....	....	.....	.....	31
31	" 1.	Yola	Bristol	.....	....	.....	.....	300	....	.....	.....	....	.....	....	.....	.....	12
32	" 1.	Hurona	London	.....	....	.....	.....	493	....	.....	.....	....	.....	....	.....	.....	20
33	" 5.	Manr. Importer	Manchester	.....	.....	.....	.....	422	....	.....	.....	....	.....	....	.....	.....	17
34	" 5.	Norwegian	Glasgow	414	..	.....	..	302	....	.....	20	....	.....	....	.....	.....	15
35	" 6.	Iona	London	.....	....	.....	.....	486	....	.....	.....	....	.....	....	.....	.....	20
36	" 7.	Monteagle	Bristol	100	....	.....	.....	350	....	.....	.....	....	.....	....	.....	.....	14
37	" 7.	Tritonia	Glasgow	308	....	.....	.....	301	....	.....	22	....	.....	....	.....	.....	14
38	" 11.	Sarmatian	"	.....	....	.....	.....	300	....	.....	16	....	.....	....	.....	.....	13
39	" 12.	Lake Champlain	Liverpool	.....	....	.....	.....	.....	....	.....	1	....	.....	....	.....	.....	1
40	" 12.	Potomac	London	.....	....	.....	.....	340	....	.....	.....	....	.....	....	.....	.....	14
41	" 13.	Concordia	Glasgow	531	..	.....	.....	301	..	.....	.....	....	.....	....	.....	.....	14
42	" 14.	Montevidian	London	310	....	.....	.....	206	....	.....	.....	....	.....	....	.....	.....	10
43	" 14.	Memnon	Liverpool	.....	....	.....	.....	519	....	.....	.....	....	.....	....	.....	.....	21
44	" 15.	Fremona	London	306	....	.....	.....	364	....	.....	.....	....	.....	....	.....	.....	13
45	" 15.	Manr. Commerce	Manchester	.....	....	.....	.....	345	....	.....	.....	....	.....	....	.....	.....	14
46	" 18.	Orcadian	Glasgow	573	....	.....	.....	302	....	.....	.....	....	.....	....	.....	.....	14
47	" 20.	Devona	London	290	....	.....	.....	481	....	.....	.....	....	.....	....	.....	.....	20
48	" 20.	Marina	Glasgow	803	....	.....	.....	301	....	.....	20	....	.....	....	.....	.....	17
49	" 21.	Pretorian	Liverpool	.....	....	.....	.....	473	....	.....	.....	....	.....	....	.....	.....	19
50	" 22.	Memnon	London	766	....	.....	.....	217	....	.....	.....	....	.....	....	.....	.....	12
51	" 24.	Indiana	"	457	....	.....	.....	100	....	.....	.....	....	.....	....	.....	.....	6
52	" 25.	Brazilian	"	291	....	.....	.....	178	....	.....	.....	....	.....	....	.....	.....	9
53	" 25.	Montefort	Bristol	.....	....	.....	.....	350	....	.....	.....	....	.....	....	.....	.....	14
54	" 26.	Lake Champlain	Liverpool	.....	....	.....	.....	559	....	.....	.....	....	.....	....	.....	.....	22
55	" 26.	Lakonia	Glasgow	145	....	.....	.....	299	....	.....	.....	....	.....	....	.....	.....	13
56	" 28.	Montcalm	Bristol	200	....	.....	.....	350	....	.....	.....	....	.....	....	.....	.....	15
57	" 30.	Man. City	Manchester	.....	....	.....	.....	592	....	.....	.....	....	.....	....	.....	.....	24
58	" 30.	Bellona	Newcastle	.....	....	.....	.....	200	....	.....	.....	....	.....	....	.....	.....	8
59	" 30.	Cervona	London	1,604	....	.....	.....	21	....	.....	.....	....	.....	....	.....	.....	8

	For the Month	7,741	....	....	10,153	....	....	79	....	....	3,356,775	745,933	144
	Previously reported	536	....	....	10,090	....	....	158	....	....	2,685,110	748,715	415
	Total to date	8,277	....	....	20,243	....	....	237	....	....	6,041,885	1,494,646	856
	Same date, 1901	16,465	....	....	22,395	....	....	486	....	....	....	....	....
67	" 1900	7,131	....	....	25,577	....	....	1,399	....	....	....	....	....
67	" 1899	11,835	....	....	28,837	....	....	1,553	....	....	....	....	....
75	" 1898	2,682	....	....	28,899	....	....	2,894	....	....	....	....	....
86													

POPE & MORGAN,
Inspectors.

MONTREAL June 30, 1902.

Record of Live Stock shipped from Port of Montreal during Month of July, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees Collected.	Horses		Swine.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
60	July 3.	Lake Ontario	Liverpool					438									18
61	" 4.	Lycia	Bristol					300									12
62	" 4.	Pomeranian	London	48				51									12
63	" 3.	Kastalia	Glasgow					265			19						12
64	" 4.	Milwaukee	London	1,838				241									18
65	" 4.	Rosarian	Glasgow					303									12
66	" 5.	Roman	Liverpool	690				702			1						31
67	" 6.	Kildona	London	664				218									12
68	" 9.	Norwegian	Glasgow	747				305									16
69	" 10.	Lake Erie	Liverpool					312									12
70	" 10.	Alcides	Glasgow					301			17						13
71	" 11.	Melville	Bristol	230				318									13
72	" 13.	Hurona	London	1,059				131									10
73	" 13.	Mongolian	Liverpool					222									9
74	" 17.	Manchester Importer	Manchester					464									19
75	" 16.	Sarmatian	Glasgow					300									12
76	" 17.	Lake Manitoban	Liverpool					400									16
77	" 17.	Tritonian	Glasgow	165				295			15						13
78	" 20.	Manxman	Liverpool					518									21
79	" 20.	Iona	London	919				197									12
80	" 23.	Oreadian	Glasgow					301									12
81	" 24.	Montevidean	London					77									3
82	" 24.	Concordia	Glasgow	276				306									13
83	" 24.	Manchester Commerce	Manchester					451									18
84	" 26.	Pretorian	Liverpool					426									
85	" 26.	Montezuma	London					586									
86	" 26.	Fremona	"	1,661				347									
87	" 26.	Monterey	Bristol	149				350									
88	" 30.	Sicilian	Glasgow					301			21						
89	" 31.	Marina	"					303									
90	" 31.	Lake Champlain	Liverpool					560			3						
		Total for July.		8,446				10,289			76				3,078,325	699,686	454

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Record of Live Stock shipped from Port of Montreal during Month of August, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees Collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
91	Aug. 1..	Montfort	Bristol					360									15
92	" 2..	Numidian	Liverpool					213									9
93	" 2..	Brazilian	London					275									11
94	" 2..	Devona	"	307				500									21
95	" 3..	Montreal	"	850				551									28
96	" 6..	Ontarian	Glasgow					306			18						14
97	" 7..	Lake Ontario	Liverpool					130									13
98	" 7..	Manchester City	Manchester					830									33
99	" 8..	Memnon	Bristol					300									12
100	" 8..	Cervona	London	89				512									21
101	" 9..	Pomeranian	"					287									12
102	" 9..	Lakonia	Glasgow					303									12
103	" 9..	Roman	Liverpool	678				701			1						32
104	" 13..	Rosarian	Glasgow					303									12
105	" 14..	Lake Erie	Liverpool					350									15
106	" 14..	Alcides	Glasgow					308									12
107	" 16..	Potomac	London					340									14
108	" 16..	Montcalm	Bristol					350			14						14
109	" 16..	Lycia	London	350				269									12
110	" 16..	Mongolian	Liverpool					233									10
111	" 17..	Kildonia	London	287				263									12
112	" 20..	Sarmatian	Glasgow					303									12
113	" 21..	Kastalia	"	36				301									12
114	" 22..	Manchester Importer	Manchester	408				484									20
115	" 22..	Hurona	London	604				423									20
116	" 24..	Milwaukee	"	924				507									24
117	" 24..	Maxman	Liverpool					519									21
118	" 27..	Orcadian	Glasgow					298									12
119	" 28..	Tritonia	"					301									12
120	" 29..	Iona	London					495									20
121	" 29..	Melville	Bristol					340									14
122	" 30..	Corinthian	Liverpool					548									22
123	" 31..	Montevidean	London					315			8						13

	For the month	4,553				12,808			41				3,713,836	740,610	556			
	Previously reported	16,723				30,532			313				9,114,210	2,194,332	1,313			
	Total for season to date	21,256				43,340			354				12,828,046	2,934,942	1,849			
	Same date, 1901	31,387				45,239			848									
	" 1900	16,305				56,498			2,242						2,000			
	" 1899	30,810				56,240			3,143									
	" 1898	14,110				39,589			4,312									
131																		
147																		
152																		
176																		

21—ii—3

MONTREAL, August 31, 1902.

POPE & MORGAN,
Inspectors.

RECORD of Live Stock shipped from Port of Montreal during Month of September, 1902.

Number.	Date.	Steamer.	Destination.	SHEEP.		CATTLE.				HORSES.		Fees.	SWINE.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.	Shipped.	Lost.		Shipped.	Lost.			
	1902.											$ cts.			Lbs.	Lbs.	
124	Sept. 3..	Sicilian	Glasgow	305	....	.....	....	297	....	30	...	.....	.....	....	.....	.....	14
125	" 4..	Lake Champlain	Liverpool	.....	....	.....	....	523	....	.....	...	.....	.....	....	.....	.....	21
126	" 4..	Concordia	Glasgow	.....	....	.....	....	306	....	.....	...	.....	.....	....	.....	.....	12
127	" 4..	Manchester Commerce	Manchester	106	....	.....	.....	348	....	.....	...	.....	.....	....	.....	.....	15
128	" 5..	Montrey	Bristol	.....	....	.....	.....	299	...	.....	...	.....	.....	...	.....	.....	12
129	" 5..	Fremonia	London	541	....	.....	.....	408	...	.....	...	.....	.....	....	.....	.....	20
130	" 6..	Pretorian	Liverpool	.....	....	.....	.....	426	....	.....	...	.....	.....	....	.....	.....	17
131	" 6..	Ottoman	"	641	....	.....	.....	820	...	.....	...	.....	.....	....	.....	.....	36
132	" 10..	Ontarian	Glasgow	100	....	.....	.....	826	..	.....	...	.....	.....	....	.....	.....	12
133	" 10..	Brazilian	London	302	....	.....	.....	163	....	.....	...	.....	.....	....	.....	.....	8
134	" 11..	Lake Ontario	Liverpool	.....	....	.....	.....	328	....	.....	...	.....	.....	....	.....	.....	13
135	" 11..	Montezuma	London	2,261	....	.....	.....	496	..	.....	...	.....	.....	....	.....	.....	29
136	" 11..	Marino	Glasgow	.....	....	.....	.....	210		3	....	.....	.....	....	.....	.....	8
137	" 12..	Montfort	Bristol	154	....	.....	.....	200	....	.....	...	.....	.....	....	.....	.....	9
138	" 13..	Manchester City	Manchester	.....	....	.....	.....	391	....	.....	...	.....	.....	....	.....	.....	16
139	" 13..	Devona	London	.....	....	.....	.....	559	....	.....	...	.....	.....	....	.....	.....	32
140	" 14..	Indiana	"	130	....	.....	.....	235	....	.....	...	.....	.....	....	.....	.....	10
141	" 14..	Roman	Liverpool	1,101	....	.....	.....	702	....	.....	...	.....	.....	....	.....	.....	33
142	" 14..	Lake Erie	"	.....	....	.....	.....	311	....	.....	...	.....	.....	....	.....	.....	12
143	" 14..	Montreal	London	1,060	....	.....	.....	311	..	.....	...	.....	.....	....	.....	.....	18
144	" 14..	Lakonia	Glasgow	300	....	.....	.....	495		2	....	.....	.....	....	.....	.....	14
145	" 14..	Cervona	London	1,111	....	.....	.....	476	....	.....	...	.....	.....	....	.....	.....	22
146	" 20..	Numidian	Liverpool	.....	....	.....	.....	213	....	.....	...	.....	.....	....	.....	.....	9
147	" 20..	Pomeranian	London	531	....	.....	.....	220	....	.....	...	.....	.....	....	.....	.....	11
148	" 21..	Montcalm	Bristol	160	....	.....	.....	220	....	.....	...	.....	.....	....	.....	.....	9
149	" 23..	Rosarian	Glasgow	.....	....	.....	.....	306	†	.....	...	.....	.....	....	.....	.....	12
150	" 24..	Saramatian	"	.....	....	.....	.....	....	17	.....	...	.....	.....	....	.....	.....	1
151	" 25..	Alcides	"	.....	....	.....	.....	262	12	.....	...	.....	.....	....	.....	.....	10
152	" 26..	Memnon	Bristol	270	....	.....	.....	240	....	.....	...	.....	.....	....	.....	.....	11
153	" 26..	Lycia	London	666	....	.....	.....	238	....	.....	...	.....	.....	....	.....	.....	14
154	" 27..	Manxman	Liverpool	.....	....	.....	.....	520	....	.....	...	.....	.....	....	.....	.....	21
155	" 27..	Hurona	London	364	....	.....	.....	494	....	.....	...	.....	.....	....	.....	.....	21

156	" 27..	Man. Shipper	Manchester.					519										23
		Total for Sept.		10,108				11,572		64						3,611,532	754,395	516
		Previously reported		21,256				43,340		354						12,828,046	2,934,942	1,849
		Total to date		31,364				54,912		418						16,439,578	3,689,337	2,365
161		Same date, 1901		35,688				57,754										
184		" 1900.		23,686				70,216										
186		" 1899.		43,758				65,494										
212		" 1898.		21,447				72,421										

MONTREAL, September 30, 1902.

POPE & MORGAN,
Inspectors.

Record of Live Stock shipped from Port of Montreal during the Month of October, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number of Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
157	Oct. 1	Arcadian	Glasgow					298									13
158	" 2	Kastalia	"					305									12
159	" 4	Corinthian	Liverpool					542									22
160	" 5	Iona	London	1,043				384									20
161	" 7	Montevidean	"					240									10
162	" 8	Sicilian	Glasgow	67				254									10
163	" 9	Lake Champlain	Liverpool					523									21
164	" 10	Milwaukee	London	1,987				430									25
165	" 11	Pretorian	Liverpool					426									17
166	" 11	Tritonia	Glasgow	165				292									12
167	" 11	Manchester Commerce	Manchester					359									14
168	" 11	Ottoman	Liverpool	949				769									37
169	" 14	Fremona	London					443									18
170	" 16	Monteagle	Bristol	153				250									11
171	" 16	Lake Ontario	Liverpool					333									13
172	" 16	Marina	Glasgow					300									13
173	" 18	Roman	Liverpool	1,146				701									33
174	" 19	Montfort	Bristol	355				202									10
175	" 23	Sardinian	Glasgow					228									9
176	" 23	Manchester City	Manchester					671									27
177	" 23	Lake Erie	Liverpool					310									13
178	" 24	Virginian	London	808				572									25
179	" 25	Brazilian	"					280									10
180	" 25	Devona	"	362				441									19
181	" 26	Lakonia	Glasgow	162				343			14						15
		Total for October		7,197				9,896			49				2,976,965	592,210	429
		Previously reported		31,364				54,912			418				15,439,578	3,669,337	2,365
		Total for season		38,561				64,808			458				18,416,543	4,261,547	2,794
190		Same date 1901		41,415				67,704			1,160						

217		Same date	1900			29,411					81,976			2,710									
215		"	"	1899			52,606					75,323			4,452									
260		"	"	1898			28,900					87,540			5,381									

POPE & MORGAN,
Inspectors.

MONTREAL, October 31, 1902.

At this date, viz., 14th November, 1902, the complete returns for November cannot be obtained. Will appear at close of this report.

RECORD of Live Stock shipped from Port of Halifax, N.S., during Month of February, 1902.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees Collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1902.									$ cts.					Lbs.	Lbs.	
19	Feb. 24...	Pretorian.....	Liverpool.....	.....	.. .	*162	.....	162	....	....	.....	....	.....	....	43,800	12,474	7

*This lot of cattle were intended to be shipped at St. John, N.B., but the train was delayed and they did not arrive until after the vessel sailed. They were forwarded by rail to meet the vessel at this port.

GEO. McKERROW,
Deputy Port Warden.

RECORD of Live Stock shipped from Port of Charlottetown, P.E.I., during Month of December, 1901.

	1901.														Tons.	Bush.	
1	Dec. 17..	Daltonhall.....	Liverpool	1,302	*	57	....	.....	....	†7 37	.....	...	.. ....	....	25	‡450 §1200	8

*No particulars. †No fees collected from shippers. ‡Oats. §Turnips.

RECORD of Live Stock shipped from Port of Prince Edward Island during Month of July, 1902.

	1902.														Tons.		
3	July 29..	Manch'r Commerce .	Manchester....	1,310	....	50	.....	....	....	*	.....	....	.....	....	26	†160 ‡5 §6	9

*No fees collected from shippers. †Bushels of oats. ‡Bags of bran. §Bushels of turnips. ‖Including foreman. §Bags of barley.

H. P. WELSH,
Inspector.

RECORD of Live Stock shipped from Port of Charlottetown, P.E.I., during Month of September, 1902.

	1902.														Tons.		
4	Sept. 11..	Manchester Trader..	Manchester. ..	530	....	21	.....	.....	....	... ..	.....	..	.....	....	12	*384	4

* Bushels of oats.

RECORD of Live Stock shipped from the Port of Charlottetown, P.E.I., during Month of October, 1902.

	1902.														Tons.	Bush.	
5	Oct. 15.	Manch'r Commerce..	Manchester.....	591	....	67	.....	.....	....	.....	.....	....	.....	...	19	334	*6

* And foreman.

H. P. WELSH,
Inspector.

Record of Live Stock shipped from Port of St. John, N.B., during Months of November and December, 1901.

Number.	Date.	Steamer.	Destination.	Sheep.		Cattle.				Fees collected.	Horses.		Swine.		Hay for Feed.	Grain for Feed.	Number Men.
				Shipped.	Lost.	Fat.	Stockers.	Total.	Lost.		Shipped.	Lost.	Shipped.	Lost.			
	1901.									$ cts.					Lbs.	Lbs.	
1	Nov. 30.	Concordia	Glasgow			237		237							71,275	21,200	9
2	" 30.	Numidian	Liverpool	159		187		187							53,780	9,460	8
3	Dec. 2.	Monmouth	Cape Town.								781	11					57
4	" 7.	Lake Superior	Liverpool	1,098		256		256							85,905	35,200	15
5	" 14.	Amaryntha	Glasgow.	1,023	10	147		147							70,065	26,000	10
6	" 22.	Corinthian	Liverpool	661	3	457		457	3						139,940	23,500	21
7	" 26.	Hurona	Cape Town.								737	66					35
8	" 29.	Man. Commerce	Manchester.			329		329							92,390	26,300	13
9	" 29.	Alcides	Glasgow	150		133		133							49,615	12,750	6
		Total for Nov. and Dec		3,091	13	1,746		1,746	3		*1,518	77			562,970	154,410	174

* The quantity of food shipped for the 1518 horses sent by the British Government to South Africa, I was unable to get record of.

Record of Live Stock shipped from Port of St. John, N.B., during Month of January, 1902.

10	Jan. 3	Lake Ontario	Liverpool	490	3	279		279			14				78,270	78,100	13
11	" 5	Numidian	"	147		277		277							83,740	8,700	12
12	" 11	Manchester City	Manchester	505		235	40	275							92,820	29,100	13
13	" 11	Concordia	Glasgow			168	50	218	1						71,705	14,400	8
14	" 17	Lake Superior	Liverpool	145		318	15	333							78,650	28,700	14
15	" 18	Pretorian	"	590	6	421	25	446							138,265	26,800	21
16	" 22	Manchester Trader	Manchester	147	1	310	20	330	1						96,950	28,500	14
17	" 25	Corinthian	Liverpool	140	2	516		516	3		16				140,665	37,500	21
18	" 26	Amaryntha	Glasgow			264	40	304	8						82,690	24,300	12
19	" 30	Marquette	Cape Town.								794	18					65
		Total for January		2,164	12	2,788	190	2,978	13		824	18			863,755	226,100	193

* Unable to obtain quantity of food supplied for horses shipped by the British Government to South Africa.

RECORD of Live Stock shipped from Port of St. John, N.B., during Month of February, 1902.

20	Feb.	9..	Numidian	Liverpool			307		307							82,160	16,700	12
21	"	14..	Manch'r Commerce	Manchester			309	20	329							91,650	26,200	13
22	"	14..	Lake Ontario	Liverpool	317	3	344	60	404	6						98,900	36,700	18
23	"	15..	Alcides	Glasgow			180	20	200	2		15				58,565	17,700	8
24	"	22..	Pretorian	Liverpool			226		226							101,195	24,300	14
25	"	23..	Manchester City	Manchester			348	65	413							116,145	31,400	18
26	"	23..	Concordia	Glasgow			135	25	160	2						48,060	12,800	6
27	"	28..	Lake Superior	Liverpool			563	40	603			21				140,770	50,300	25
			Total for February		317	3	2,412	230	2,642	10		36				737,445	216,100	114

RECORD of Live Stock shipped from Port of St. John, N.B., during Month of March, 1902.

28	Mar.	4..	Manchester Shipper	Havre, France	825		36		36							44,835		5
29	"	8..	Corinthian	Liverpool			491		491	3						133,205	22,800	20
30	"	8..	Kastalia	Glasgow			173		173		17					57,485	12,500	8
31	"	10..	Manchester Trader	Manchester			290	20	310	1						87,080	24,900	12
32	"	15..	Numidian	Liverpool			314	5	319	2						82,830	20,600	13
33	"	16..	Lake Ontario	"	59		443		433							99,020	36,400	18
34	"	21..	Lake Michigan	Cape Town							750							64
35	"	26..	Manchester Com'erce	Manchester			303	25	328							91,900	26,300	13
36	"	28..	Indiana	Glasgow			113		113							33,945	9,000	5
			Total for March		884		2,153	50	2,203		767					630,300	152,500	158

F. J. HARDING,
Agent.

APPENDIX

STATEMENT of Expenditure by the Marine Department

	1868.	1869.	1870.	1871.
	$ cts.	$ cts.	$ cts.	$ cts.
Maintenance of lights—				
Above Montreal	40,561 28	42,306 69	46,289 05	44,054 01
Montreal District	23,053 56	25,762 54	21,669 49	22,453 52
Below Quebec	45,615 35	41,651 73	43,730 61	31,582 75
Nova Scotia	46,460 72	56,394 88	43,682 86	76,230 77
New Brunswick	20,488 00	23,893 00	27,485 14	20,542 29
Prince Edward Island				
British Columbia				
Construction—				
Above Montreal	3,136 15		2,976 83	8,770 55
Quebec	7,323 75	7,492 59	1,543 06	
Nova Scotia	22,041 42	6,905 80	18,967 23	10,948 31
New Brunswick			11,555 91	8,735 73
Prince Edward Island				
British Columbia				
Dominion steamers—				
Quebec	69,026 73	37,176 02	34,549 49	59,797 05
Nova Scotia	14,778 92	26,603 94	19,759 96	13,139 86
New Brunswick				
Prince Edward Island				
British Columbia				
Examination of masters and mates			908 12	1,407 66
Hudson's Bay expedition				
Investigations into wrecks			140 00	
Marine Hospital, Quebec	19,977 36	19,221 45	21,618 73	19,823 18
Marine hospitals	1,070 86	15,615 71	15,652 62	15,728 93
Meteorological service	8,200 00	8,950 00	8,950 00	9,379 82
Registration of Canadian shipping				
Removal of obstructions			2,350 07	1,000 00
Rewards for saving life				
Signal service				
Steamboat inspection	7,106 93	7,999 00	7,396 96	8,321 00
Survey, Georgian Bay				
Water Police, Montreal	27,445 35	10,238 71	9,323 31	8,030 00
" Quebec		12,633 59	9,038 62	9,370 73
Civil Government	15,083 88	18,064 25	19,401 05	20,220 96
Steam communication—				
Between Quebec and Maritime Provinces				
Between Prince Edward Island and Mainland				
Purchase of steamer to replace—				
Glendon				
Lady Head				
Winter mail service, Prince Edward Island				
Tidal observations				
Gratuities				
Survey, Burrard Inlet				
Export cattle trade				
	371,070 56	360,899 90	367,129 11	389,537 12

No. 7.

from Confederation to June 30, 1902.

1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
57,609 16	61,036 47	60,798 75	71,937 18	68,344 18	65,421 00	73,175 11	74,587 78	65,518 61
22,369 00	31,143 14	20,939 13	15,000 00	12,999 48	15,998 00	15,996 00	14,917 95	16,523 88
41,936 00	65,645 00	102,056 09	110,362 00	98,792 93	89,980 41	96,904 00	93,178 61	96,703 87
67,862 24	100,953 80	114,711 91	114,344 51	143,125 56	128,496 00	132,888 95	120,951 33	116,189 60
23,369 12	29,266 85	53,459 04	60,119 02	62,551 61	50,998 00	58,989 00	57,499 02	61,252 82
.....	.....	3,357 71	12,584 64	13,730 53	11,817 00	16,986 66	12,158 72	15,288 17
.....	13,207 09	18,519 50	15,983 72	17,175 97	15,853 00	18,948 78	15,152 73	15,576 99
6,940 45	18,999 38	24,461 86	14,286 65	13,320 40	16,267 98	7,207 96	11,993 75	13,297 81
57,818 35	39,303 87	41,950 82	19,325 00	24,336 47	12,945 29	12,776 47	4,154 58	7,797 75
34,760 12	90,181 79	51,867 94	43,898 63	42,214 55	25,550 00	13,500 00	17,386 97	7,069 01
9,561 14	16,691 06	31,572 60	8,842 97	17,819 85	7,083 82	12,028 13	22,598 14	4,985 53
.....	.....	.....	.....	11,829 61	17,752 00	2,504 47	2,560 88	6,074 50
.....	.....	4,353 93	8,799 07	8,477 67	29 66	.....	.....	.....
47,500 00	51,758 05	64,490 00	79,043 70	62,971 49	49,987 66	42,683 00	44,972 79	49,318 93
20,999 63	24,999 57	30,008 99	22,992 62	133,826 08	38,739 39	43,027 00	42,016 53	49,438 93
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	16,241 26	61,782 63	28,933 63	16,332 05	14,429 52
12,115 96	15,984 72	10,555 67	41,796 74	10,156 56	16,095 90	12,193 40	7,460 68	9,733 34
4,312 07	6,466 18	4,520 19	5,696 62	4,672 08	4,050 00	4,249 76	4,250 12	4,253 43
.....	.....	.....	.....	.....	.....	.....	.....	.....
874 00	1,068 89	2,313 31	366 00	466 41	342 65	500 00	1,691 00	676 73
21,000 00	21,000 00	20,456 45	21,994 75	23,795 85	19,965 97	19,987 50	20,791 77	12,991 23
53,536 16	27,150 43	45,986 87	37,111 67	37,155 72	42,449 55	37,487 10	37,445 57	35,040 00
12,618 15	18,830 54	36,700 59	33,580 00	45,560 03	44,871 38	46,050 24	45,706 13	45,554 51
.....	.....	272 30	1,096 46	412 06	842 14	1,435 10	239 26	257 75
.....	.....	.....	450 00	.....	203 00	462 00	305 86	825 00
2,284 32	1,975 13	4,931 78	3,552 86	2,292 20	1,958 55	4,071 00	2,533 10	2,263 15
.....	.....	1,000 00	.....	.....	.....	.....	.....	.....
8,500 00	13,266 00	10,291 58	12,200 00	13,081 86	13,073 01	13,228 38	13,076 46	11,854 34
.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000 00	14,453 87	12,370 86	13,395 00	14,090 00	13,524 29	14,062 00	13,462 74	13,131 06
10,348 00	18,200 00	26,526 66	24,500 00	27,136 68	21,482 08	23,498 06	23,023 26	22,094 48
22,644 52	25,336 04	30,087 23	31,326 18	32,789 18	32,304 12	32,682 50	36,610 19	35,083 95
.....	.....	15,000 00	10,000 00	10,000 00	.....	.....	.....	.....
.....	.....	.....	.....	750 00	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
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.....	.....	.....	.....	.....	.....	.....	.....	.....
518,958 49	706,817 92	845,150 09	844,586 09	970,146 27	820,054 38	786,156 23	755,359 47	723,360 89

STATEMENT of Expenditure by the Marine Department

—	1881.	1882.	1883.
	$ cts.	$ cts.	$ cts.
Maintenance of lights—			
Above Montreal	65,541 21	71,048 50	70,116 68
Montreal District	14,326 36	21,643 05	22,260 32
Below Quebec	89,781 29	91,098 66	102,784 99
Nova Scotia	128,918 59	137,846 15	150,793 17
New Brunswick	63,921 90	66,073 00	75,946 92
Prince Edward Island	12,997 36	16,985 72	17,907 27
British Columbia	17,570 72	17,803 00	18,349 06
Cape Race			
Construction—			
Above Montreal	14,180 02	13,581 00	9,782 27
Quebec	7,539 76	3,731 31	9,672 50
Nova Scotia	7,757 52	13,355 00	9,422 75
New Brunswick	4,578 52	2,253 80	1,022 57
Prince Edward Island	8,150 06	3,092 00	1,934 49
British Columbia	8,655 39	3,237 90	1,005 26
Queen's Printer			
Dominion steamers—			
Quebec	64,973 00	44,923 98	45,156 13
Nova Scotia	36,700 00	31,049 74	37,841 07
New Brunswick			
Prince Edward Island	15,139 95	23,911 97	19,680 00
British Columbia	11,788 09	8,504 61	25,484 00
Department			
Examinations of masters and mates	3,888 41	3,981 00	4,021 20
Hudson's Bay expedition			
Investigation into wrecks	310 48	863 19	875 64
Marine hospital, Quebec	19,964 33	19,938 12	19,998 53
Marine hospitals	32,218 94	33,162 45	29,880 78
Meteorological service	46,163 54	47,464 07	51,990 25
Registration of Canadian shipping	607 43	2,013 28	168 84
Removal of obstructions	150 00	1,116 51	35 80
Rewards for saving life	1,806 13	2,212 00	2,534 60
Signal service			3,365 33
Steamboat inspection	12,211 65	14,835 00	16,209 00
Hydrographic surveys			77 81
Water Police, Montreal	21,953 26	21,994 74	15,798 24
" Quebec	13,497 81	20,221 82	22,520 41
Civil Government	36,447 50	36,789 46	37,988 39
Steam communication—			
Between Quebec and Maritime Provinces			
Between Prince Edward Island and Mainland			
Repairs to wharfs			
Purchase of steamers to replace—			
Stanley			395 55
Glendon			
Lady Head			
Winter mail service, Prince Edward Island			
Tidal observations			
Gratuities			
Survey, Burrard Inlet			
Export cattle trade			
Survey, Bay of Quinté			
Relief of distressed Canadians			
Manning ships			
Widow of late A. Warner			
McDonald Bros			
Parliamentary Returns			
Investigating effect of Chicago drainage canal			
John McDonald			
Longitude, Montreal			
Marine biological station			
	761,730 62	774,831 53	825,010 82

from Confederation to June 30, 1902—*Continued.*

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
70,788 27	70,697 89	85,713 98	75,690 74	85,588 70	72,721 23	84,035 65	93,180 72
22,946 43	23,262 94	33,289 28	16,735 49	17,510 17	12,285 79	118,750 70	122,471 89
101,302 35	118,856 94	131,095 29	131,540 80	108,278 67	112,690 20		
142,909 72	137,439 40	143,153 24	117,708 55	133,009 92	140,197 15	139,459 56	139,916 83
86,670 70	92,130 28	76,046 63	96,425 28	73,465 49	78,285 79	61,608 91	61,089 31
19,059 62	20,218 83	22,282 52	17,852 15	14,796 62	19,118 51	16,968 80	19,000 46
18,107 54	15,497 76	14,783 75	16,250 43	19,604 63	16,877 12	16,411 49	19,595 22
.....	.....	.....	4,453 25	5,124 20	7,358 01	.....	.....
18,432 63	27,977 42	36,678 16	18,383 20	6,341 97	8,623 76		9,796 28
3,168 48	4,354 87	5,877 84	1,260 00	2,287 86	12,203 06		3,723 14
12,489 35	4,352 42	5,905 17	5,330 89	5,533 48	6,039 91		4,596 94
2,868 70	7,667 42	2,421 66	5,280 75	1,542 61	2,966 36	23,863 09	208 16
2,158 60	879 40	.....	384 66	.....	.....		410 00
2,830 38	5,223 11	4,942 70	321 84	5,918 00	1,890 00		14,417 25
.....	.....	.....	26 58	.....	40 14		.....
43,019 13	51,092 98	51,485 03	50,714 52				
27,726 60	42,921 27	30,283 27	32,287 10				
.....	.....	24,633 26	14,337 23	150,659 19	126,629 33	114,956 20	111,437 05
19,539 52	33,962 54	20,927 58	19,987 67				
16,111 83	12,485 07	13,430 69	10,809 07				
.....	.....	.....	13,288 83				
5,580 79	6,676 44	5,239 28	4,858 98	5,063 96	4,381 04	4,117 83	4,255 24
480 69	71,374 69	35,217 10	14,762 61	165 00	.....	.....	.....
830 12	385 15	592 63	520 14	513 91	516 67	888 94	1,172 77
19,990 34	19,996 68	16,047 95	19,706 96	18,777 62	18,643 14	10,279 08	751 75
31,401 30	45,371 29	32,229 02	32,545 35	30,667 67	33,089 20	31,450 03	33,303 37
56,418 16	56,625 40	56,898 33	57,140 74	59,986 10	58,577 07	58,452 10	62,457 10
189 27	237 88	157 13	233 13	897 02	179 21	647 52	1,207 07
342 76	2,259 21	1,237 34	4,190 83	2,500 94	3,603 65	5,737 26	3,633 65
2,614 91	5,221 15	8,147 22	7,363 94	6,825 48	5,503 44	8,150 92	4,952 20
6,704 17	3,881 05	4,622 00	5,082 17	4,441 59	5,092 54	4,976 80	4,700 79
21,893 28	23,235 04	21,775 57	22,847 80	21,430 45	22,213 03	20,989 52	22,183 76
26,745 54	20,454 68	17,759 36	21,592 55	19,424 14	17,808 46	17,969 23	17,677 51
19,021 93	17,683 59	20,933 75	17,413 47	18,725 95	16,948 82	13,164 60	573 89
22,958 79	20,399 33	22,922 82	22,935 65	18,553 57	14,698 68	8,620 61	7,279 85
38,775 00	29,900 83	30,453 57	37,193 62	32,728 78	43,501 96	42,835 78	43,253 67
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	143,505 60	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
56,164 71	47,238 03	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	5,985 12	6,312 93	.....	.....	.....	.....
.....	.....	.....	.....	7,740 25	1,842 47	2,752 67	7,012 70
.....	.....	.....	.....	.....	.....	244 75	1,888 71
.....	.....	.....	.....	.....	200 00	80 00	1,025 00
.....	.....	.....	.....	.....	.....	.....	1,690 12
.....	.....	.....	.....	.....	.....	.....	520 85
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927,241 61	1,129,901 14	980,129 59	917,557 31	883,250 85	1,023,891 34	807,417 53	885,410 11

STATEMENT of Expenditure by the Marine Department

—	1892.	1893.	1894.
	$ cts.	$ cts.	$ cts.
Maintenance of lights—			
Above Montreal	87,033 61	87,598 15	78,090 69
Montreal District	116,531 27	120,404 19	124,348 80
Below Quebec			
Nova Scotia	148,815 26	150,445 26	137,339 73
New Brunswick	66,886 69	71,079 46	59,917 96
Prince Edward Island	17,069 98	16,819 64	15,569 39
British Columbia	26,858 68	24,413 27	27,240 77
General account			
Construction—			
Above Montreal	21,704 05	8,766 62	12,581 15
Quebec	809 27	10,097 18	4 743 13
Nova Scotia	1,965 16	4,381 24	3,104 77
New Brunswick	1,845 35	1,271 15	115 45
Prince Edward Island	1 56		1,604 00
British Columbia	9,478 81	2,958 61	6,356 43
General account			
Dominion steamers—			
Quebec			
Nova Scotia			
New Brunswick	145,899 61	163,097 46	178,183 97
Prince Edward Island			
British Columbia			
Department			
Examinations of masters and mates	6,363 88	4,116 99	3,745 33
Hudson's Bay expedition			
Investigation into wrecks	603 21	643 49	850 81
Marine hospital, Quebec			
Marine hospitals	34,106 83	35.757 07	38,403 94
Meteorological service	67,138 06	64,165 60	66,440 96
Registration of Canadian shipping	462 59	1,476 19	394 00
Removal of obstructions	2,878 68	1,554 53	202 02
Rewards for saving life	6,398 93	7,432 64	8,014 67
Signal service	5,014 42	5,040 58	4,668 93
Steamboat inspection	22,736 59	24,386 95	25,961 36
Hydrographic surveys	16,451 10	17,542 11	31,461 76
Water Police, Quebec	6,161 60	5,436 23	
Civil Government	43,195 31	56,477 23	54,988 88
Repairs to wharfs		84 90	1,007 67
Purchase of steamer Minto			
Winter mail service, Prince Edward Island	3,309 44	4,376 96	6,497 03
Tidal observations	711 59	5,099 17	10,172 61
Gratuities			3,261 32
Survey, Burrard Inlet	2,580 45		
Export cattle trade	1,411 57	1,711 73	1,350 83
Survey, Bay of Quinté		2,085 45	
Relief of distressed Canadians			
Manning ships			
Widow of late A. Warner			
Macdonald Bros			
Parliamentary returns			
Investigating effect of Chicago drainage canal			
John Macdonald			
Unforeseen expenses			
Marine biological station			
New life-saving station, Long Point			
Salaries temporary clerks			
Steamer to replace Bayfield			
Observatory, Sulphur Mountain			
Charles Morrison			
W. H. Smith			
	861,426 80	898,720 03	905,654 34

SESSIONAL PAPER No. 21

from Confederation to June 30, 1902—*Concluded.*

1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
82,541 16	87,256 28	80,961 06	87,841 22	92,751 23	82,810 92	93,708 16	92,195 52
124,763 81	124,143 66	126,186 00	116,279 88	136,134 79	122,112 42	132,147 88	154,839 06
140,977 53	123,234 65	124,671 19	126,386 00	65,072 35	122,414 86	142,359 01	149,572 14
69,654 46	63,018 64	56,771 02	67,369 98	128,674 15	52,491 93	65,247 80	69,133 51
17,976 67	17,988 15	16,429 23	18,112 93	20,589 81	42,878 40	28,031 85	24,223 73
21,734 18	24,770 44	25,679 52	26,862 03	29,530 20	33,545 95	31,938 25	35,119 03
.....	.....	.....	.....	.....	.....	.....	46 75
2,699 40	11,993 84	9,527 84	6,867 69	3,729 62	7,094 64	12,499 99	
3,004 14	3,300 00	296 26	3,649 90	37,838 80	40,319 03	17,060 03	
4,737 03	1,842 94	61 71	4,067 99	3,123 16	4,884 22	12,832 69	
1,597 80	200 00	1 60	1,423 34	91 49	.....	266 34	158,714 09
.....	.....	452 90	1,409 60	616 96	5,586 91	922 00	
180 83	225 50	569 99	6,414 19	19,305 60	....	4,160 74	
.....	....	.....	....	.....	....	660 03	
169,661 64	145,315 28	136,940 11	117,644 39	145,270 75	180,430 65	195,484 75	452,526 92
2,757 29	4,062 82	3,536 23	3,335 40	3,568 26	3,750 69	3,730 25	3,305 59
.....	....	19,091 32	27,050 66	.....	.....	.....	.....
351 15	483 98	565 25	312 77	982 17	773 06	1,022 65	1,824 55
.....	.....	.....	.....	.....	.....	.....	.....
38,589 05	36,682 96	37,984 71	38,162 56	37,353 29	37,743 30	36,008 75	51,827 13
64,588 34	66,600 29	67,397 71	64,135 71	73,148 05	67,692 42	74,082 76	80,147 46
207 40	517 60	531 55	818 33	966 48	266 43	546 62	607 23
2,217 36	456 38	631 86	704 17	745 49	252 19	1,000 00	1,325 25
6,591 34	8,004 38	5,955 19	5,081 40	7,049 09	7,007 97	8,519 92	8,278 55
5,311 74	5,338 76	5,986 12	4,993 88	6,067 49	5,906 83	8,950 17	6,452 56
26,385 88	26,321 27	26,837 83	26,342 29	28,035 49	27,965 72	29,247 59	27,493 80
12,653 28	15,099 63	12,352 99	15,306 66	13,664 97	12,600 98	16,170 20	25,488 64
.....	....	.....	.....	.....	.....	.....	.....
71,373 82	.....	74,801 37	74,644 05	72,833 97	63,331 61	68,776 95	70,246 32
824 38	2,644 69	1,795 56	1,618 97	.....	697 87	1,261 06	2,824 28
.....	.....	.....	.....	144,365 26	41,951 88	.....	.....
6,138 18	7,779 69	21,931 05	9,575 31	8,439 70	1,503 70	2,093 93	8,835 86
11,507 24	9,627 45	13,166 20	3,081 45	5,186 35	4,372 18	7,060 20	8,925 33
.....	.....	.....	.....	.....	.....	.....	136 85
.....	.....	.....	.....	.....	.....	.....	.....
2,268 74	2,887 24	.....	2,499 80	2,757 85	2,762 24	2,746 84	3,321 23
.....	.....	.....	.....	.....	.....	.....	.....
7 30	.....	.....	.....	.....	.....	.....	.....
500 00	746 89	.....	.....	.....	.....	.....	.....
160 00	.....	.....	.....	.....	.....	.....	.....
4,000 00	.....	.....	.....	.....	.....	.....	.....
.....	291 08	.....	.....	.....	.....	133 32	.....
.....	2,500 00	.....	.....	.....	.....	1,659 14	.....
.....	200 00	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	3,452 21	2,630 62	3,490 29
.....	.....	.....	.....	5,709 10	739 61	1,990 58	1,998 85
.....	.....	.....	.....	.....	.....	.....	1,780 52
.....	.....	.....	.....	.....	.....	.....	2,967 35
.....	.....	.....	.....	.....	.....	.....	50,000 00
.....	.....	.....	.....	.....	.....	.....	55 00
.....	.....	.....	.....	.....	.....	.....	223 00
.....	.....	.....	.....	.....	.....	.....	3,691 69
895,828 28	793,634 49	867,772 90	856,192 50	1,102,601 90	982,561 97	1,029,925 32	1,501,618 88

APPENDIX No. 8.

STATEMENT relating to the Wharfs under the control of the Department, on June 30, 1902.

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
Ontario.				$ cts.
Bruce Mines	Wm. Fleming	Apl. 15, 1902.	25 p.c. of collections	*16 83
Cockburn Island	Alfred Monck	May 20, 1890.	25 "	58 22
Goderich	W. Marlton	Feb. 14, 1894.	25 "	*299 00
Hilton, St. Joseph Id., Algoma	E. Stubbs	June 20, 1898.	50 "	216 89
Kingsville	W. H. Black	Aug. 1, 1902.	25 "	6 58
Morpeth	C. Stammers	Aug. 1, 1894.	25 "	
North Bay	W. McKenzie	Oct. 9, 1900.	25 "	8 53
Port Rowan	John Collett	May 2, 1898.	25 "	
Richard's Landing, Algoma	R. Armstrong	Mar. 11, 1899.	25 "	133 40
Rondeau	W. R. Fellows	Dec. 17, 1888.	25 "	146 24
Sault Ste. Marie	George A. Boyd	April 9, 1897.	$142 per month during season of navigation	2,506 11
Southampton	Geo. McVittie	Aug. 16, 1895.	25 p.c. of collections	66 30
Summerstown	Under lease			
Thessalon, Algoma	D. J. Sandie	Apl. 22, 1902.	25 p.c. of collections	
Wiarton	H. R. A. Ely	Dec. 10, 1890.	25 "	96 67
			Total	3,554 77
Quebec.				
Agnes	L. A. Roy	Nov. 27, 1891.	25 p.c. of collections	
Anse St. Jean	F. Lavoie	Mar. 13, 1895.	25 "	57 58
Baie St. Paul	Vacant		25 "	
Baie St. Paul, Isolated Block	A. Simard	Aug. 25, 1891.	25 "	79 45
Beauport	D. Giroux	Nov. 11, 1896	25 "	31 40
Berthier	E. Gaumond	July 5, 1897.	50 "	132 44
Cap à-l'Aigle	Jos. Guay	Oct. 7, 1896.	25 "	45 95
Carleton	Chas. Bernier	Apl. 15, 1902.	$50 per annum	28 07
Cascades	Moïse Leroux	Oct. 20, 1897.	25 p.c. of collections	
Cedars	J. Reay	Apl. 29, 1898.	25 "	17 10
Chicoutimi	Thomas Tremblay	May 23, 1901.	25 "	271 47
Coteau du Lac	M. St. Amour	Sept. 21, 1896.	25 "	27 84
Coteau Landing	J. A. Prieur	May 25, 1897.	25 "	102 62
Echo Vale, Lac Megantic	D. P. Matheson	May, 16, 1894.	25 "	
Esquimaux Point	Vacant			
Grand River	Geo. Beaudin	Nov. 16, 1896.	25 "	288 08
Greeces Point	T. Ranger	July 16, 1902.	25 "	10 24
Isle aux Grues	Jos. Painchaud	Feb. 17, 1890.	25 "	0 12
Isle Perrot	Rodger Leduc	Oct. 20, 1897.	25 "	
Knowlton's Landing	L. Knowlton	Nov. 26, 1897.	25 "	35 10
Lacolle	R. J. Robinson	Mar. 8, 1894.	25 "	9 76
Les Eboulements	M. Tremblay	Sept. 4, 1894.	25 "	83 81
L'Islet	Octave Morin	Feb. 8, 1893.	25 "	
Longueuil	Ensébe Denicourt	May 15, 1901.	25 "	17 00
Magog	Edward Addy	June 20, 1898.	25 "	
Matane	Louis Durette	Aug. 25, 1900.	25 "	115 56
Murray Bay	Elie Maltais	" 12, 1893.	25 "	163 69
New Carlisle	John Chisholm	Apl. 25, 1902.	25 "	273 91
Percé	T. W. Flynn	Jan. 19, 1893.	25 "	24 71
Port Daniel	C. Sweetman	Mar. 12, 1901.	$50 per annum	134 14
Port Lewis	Sam. Carson	Sept. 21, 1899.	25 p.c. of collections	

*Commissions on collections are paid on total collections which exceed the amount to credit by the commission retained.

STATEMENT relating to Wharfs, &c.—*Continued.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
Quebec—Con.				$ cts.
Rimouski	Chas. Lepage	July, 24, 1894.	25 p.c. of collections	
Rivière Quelle	J. Hudon dit Beaulieu	Nov. 28, 1892.	25 "	
Rivière du Loup	F. E Gilbert	Aug. 15, 1902.	25 "	804 16
St. Anicet	S. Dupis	Sept. 14, 1896.	25 "	
St. Alphonse de Bagotville	Abel Tremblay	July 7, 1891.	25 "	167 54
St. Irenee	Geo. Bouchard	"	25 "	55 69
St. Jean d'Orleans	L. Lachance	Sept. 26, 1896.	25 "	147 21
St. Jean Port Joli	J. Pelletier	" 14, 1896.	25 "	
Ste. Cécile du Bic	Olivier Ouellet	Aug. 25, 1900.	25 "	76 22
St. Laurent d'Orleans	Ed. Chabot	" 25, 1894.	25 "	107 46
St. Thomas de Montmagny	L. Dionne	Oct. 22, 1896.	25 "	2 62
St. Zotique	J. M. Leroux	Sept. 21, 1896.	25 "	
Tadousac	A. Christiansen	Oct. 20, 1897.	25 "	122 46
Trois Pistoles	D. Damour	May 10, 1895.	25 "	
Valois Point	L. Gastonguay	Oct. 20, 1897.	25 "	
Ville Marie	Jules Maillard	Feb. 2, 1899.	25 "	
			Total	3,433 40
Nova Scotia.				
Arisaig	H. R. McAdam	Dec. 30, 1898.	25 p.c. of collections	56 94
Avonport	L. F. Fuller	Aug. 15, 1902	25 "	2 00
Babbins Cove	Alex. Thomas	Oct. 20, 1897.	25 "	
Barrington	J. H. Christie	Aug. 31, 1896.	25 "	162 82
Bass River	Jotham Fulton	Jan. 6, 1898.	25 "	
Bayfield	Roderick Grant	April 23, 1902.	25 "	33 35
Bear Point	E. R. Smith	Feb. 19, 1902.	25 "	0 34
Belliveau Cove	St. Clair Theriau	Nov. 24, 1902.	25 "	113 14
Broad Cove	John Teal	June 12, 1893.	25 "	
Broad Cove Marsh	Hugh McDonald	Oct. 19, 1892.	25 "	
Brooklyn	F. T. Gardiner	" 20, 1882.	25 "	
Canada Creek	Henry Dickey	Aug. 12, 1899.	25 "	
Cape Cove	J. A. Ellis	May 14, 1897.	25 "	2 83
Centreville	Alfred Ward	" 28, 1897.	25 "	23 53
Chipman's Brook	John Kirby	" 24, 1901.	25 "	86 89
Church Point	Chas. F. Belliveau	Aug. 20, 1892.	25 "	1 26
Cranberry Head	Abram Thurston	Feb. 16, 1889.	25 "	74 54
Cribbens Pier, Antigonish Hr.	A. R. Boyd	Oct. 2, 1895.	25 "	
Delap's Cove	R. W. McCaul	Nov. 28, 1889.	25 "	
Descousse	Thos. Boudriot	Feb. 22, 1902.	25 "	16 74
Digby	W. W. Hayden	April 20, 1897.	25 "	27 28
Eagle Head	Nathan Leslie	Jan. 9, 1899.	25 "	2,330 77
East Bay	Donald McInnis (Ronald's son)	April 5, 1866.	25 "	
East River, Sheet Harbour	Malcolm McFarlane	May 20, 1890.	25 "	
Grand Narrows, Victoria Co.	F. X. McNeil	Nov. 11, 1896.	25 "	
Grand Narrows, Cape Breton Co	Neil McNeil, jr	Aug. 6, 1898.	25 "	
Grand Village	Vacant			
Hall's Harbour	T. A. Neville	Jan. 8, 1897.	25 p.c. of collections	17 49
Hampton	Judson Foster	Aug. 25, 1888.	25 "	50 48
Hantsport	Vacant			
Harbourville	Isaac Cook	May 28, 1897.	25 p.c. of collections	27 93
Horton Landing	F. G. Curry	April 30, 1898.	25 "	7 23
Iona, Grand Narrows	F. S. X. McNeil	June 8, 1901.	25 "	
Irish Cove	Malcolm E. McNeil	June 6, 1902.	25 "	45 02
Isaacs Harbour	T. D. Cook	Jan. 30, 1902.	25 "	
Jordan Bay	John Fredericks	Feb. 20, 1900.	25 "	20 66
Kelly Cove	Jos. B. Huskins	April 11, 1899.	25 "	121 18
Little Narrows	Vacant			
Lismore	D. A. McKinnon	July 5, 1895.	25 p.c. of collections	
Maitland, Hants Co	Vacant			
Port Maitland, Yarmouth Co.	J. Ellis	Dec. 10, 1896.	25 p.c. of collections	
Margaretsville	C. S. McLean	May 7, 1897.	25 "	34 16

STATEMENT relating to Wharfs, &c.—*Continued.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
Nova Scotia—Con.				$ cts.
Meteghan Cove	H. F. Robicheau	May 28, 1897.	25 p.c. of collections	120 05
Meteghan River	D. D'Entremont	" 14, 1897.	25 "	67 11
Militia Point	D. McIntosh	Aug. 20, 1892.	25 "	42 59
Morden	John Redgate	Nov. 16, 1893.	25 "	7 01
Noel	Vacant			
Northside, Boularderie	Dan McKenzie	Nov. 26, 1897.	25 p.c. of collections	
Oak Point (Kingsport)	Rent from Railway Company			200 00
Ogilvie	R. S. Armstrong	May 13, 1901.	25 p.c. of collections	14 51
Parrsboro'	Thompson Tipping	Nov. 26, 1888.	25 "	40 00
Parker's Cove	John A. Clarke	June 26, 1901.	25 "	32 02
Pickett's Wharf	Freeman A. Eaton	Aug. 2, 1899.	25 "	72 30
Pictou Island	Vacant			
Plympton	Wm. K. Smith	Aug. 8, 1890.	25 p.c. of collections	
Point Brulé	Alex. Craig	Dec. 26, 1898.	25 "	0 33
Port Dufferin Halifax Co.	H. J. Balcom	Feb. 17, 1899.	25 "	36 00
Port George	Outhit Douglas	June 26, 1900.	25 "	118 90
Port Greville	Vacant			
Port Hood	Albert Macdonnell	May 22, 1900.	25 p.c. of collections	
Port Joli	Jos. S. McAdams	Feb. 5, 1900.	25 "	
Port La Tour	David Sholds	Feb. 1, 1900.	25 "	18 96
Port Lorne	Freeman Beardsley	June 22, 1897.	25 "	42 22
Port Morien	John McAuley	Dec. 10, 1896.	7½ "	449 94
Riverside	Geo. W. Hawes	Mar. 11, 1992.	25 "	4 43
Salmon River Digby Co.	J. M. Deveau	Nov. 29, 1890.	25 "	
Saulnierville	John T. Saulnier	Aug. 25, 1888.	25 "	12 85
Swims Point	J. F. Duncan	Jan. 23, 1902.	25 "	19 35
Tancock Island	Amos H. Stevens	Mar. 11, 1898.	25 "	
Tidnish	R. A. Smith	Sept. 27, 1901.	25 "	2 65
Town Point	J. A. Haley	Aug. 16, 1901.	25 "	71
Tracadie	J. M. Hall	Nov. 6, 1888.	25 "	
Tusket Wedge	Vacant			
Victoria	Amos West	Dec. 4, 1900.	25 p.c. of collections	
Wallace	Vacant			
Wallace Harbour, South side	"		25 p.c. of collections	
West Pubnico	Chas. C. D'Entremont	Mar. 28, 1898.	25 "	
West River, Sheet Harbour	Malcolm McFarlane	Sept. 3, 1889.	25 "	25 45
White Point	Elisha West	Jan. 9, 1889.	25 "	
White Waters	Joseph Irvine	Sept. 27, 1901.	25 "	
Wolfeville	J. L. Franklin	Oct. 22, 1901.	25 "	9 41
			Total	4,591 37
New Brunswick.				
Anderson's Hollow	W. C. Anderson	Feb. 13, 1899.	25 p. c. of collections	46 75
Black River	Vacant			
Buctouche	J. J. LeBlanc	May 2, 1892.	25 p. c. of collections	15 32
Campbellton	Alfred J. Venner	June 10, 1893.	25 "	265 10
Cape Tormentine	E. T. Allen	Oct. 20, 1897.	25 "	545 07
Clifton, Stonehaven	S. Payne	Nov. 9, 1894.	25 "	14 85
Cocagne	H. Bourgeois	Aug. 9, 1900.	25 "	2 10
Dalhousie	W. J. Smith	June 27, 1891.	25 "	72 93
Edgett's Landing	Thos. Barnett	July 5, 1895.	25 "	7 71
Gardener's Creek	Robert Wallace	Dec. 11, 1899.	25 "	
Hopewell Cape	Geo. D. Wilson	Apr. 10, 1899.	25 "	26 84
Kingston	P. Thibodeau	Jan. 31, 1901.	25 "	
Neguac	B. Poirier	June 17, 1897.	25 "	
Quaco	Wellington Vale	Dec. 19, 1899.	25 "	18 91
St. Louis	C. Frigand	Oct. 29, 1895.	25 "	
St. Mary's	M. J. S. LeBlanc	Mar. 1, 1897.	25 "	
St. Nicholas River, S. Welford	John Grant	Sep. 27, 1901.	25 "	
Tracadie	Prospere Savoy	" 23, 1899.	50 "	
			Total	1,015 58

STATEMENT relating to Wharfs, &c.—*Concluded.*

Locality.	Wharfinger.	Date of Appointment of Wharfinger.	Remuneration allowed.	Amount deposited to credit of Receiver General.
Prince Edward Island.				$ cts.
Annandale	W. C. Jenkins	May 4, 1897.	25 p. c. of collections	64 93
Bay View	Joseph Harrington	Oct. 2, 1885.	25 "	24 00
Belfast	Jas. F. Halliday	Mar. 1, 1901.	25 "	70 34
Brush Wharf, Port Selkirk	Levi R. Ings	Sep. 18, 1885.	25 "	122 19
Campbell's Cove	Angus McIntyre	Oct. 17, 1888.	25 "	
Chapel Point	Ronald McCormack	Sep. 18, 1885.	25 "	14 25
China Point	W. S. N. Crane	" 18, 1885.	25 "	22 02
Clifton	John Gunn	May 24, 1900.	25 "	
Cranberry, East River	James Hughes	Mar. 11, 1898.	25 "	
Crapaud and Victoria Pier	E. McKinnon	July 7, 1897.	25 "	257 34
Georgetown	James Bourke	" 2, 1885.	25 "	
Haggerty's Wharf, E. River	M. Burnett	Feb. 14, 1898.	25 "	
Hickey's Wharf	Mark Webster	Oct. 22, 1896.	25 "	35 00
Higgin's Shore	G. G. Henry	Nov. 9, 1891.	25 "	
Hurd's Point	Thos. Montgomery	Aug. 16, 1901.	25 "	14 45
Kier's Shore	W. Hodgson	June 10, 1895.	25 "	192 27
Lambert and Stevens	Wellington Johnston	May 3, 1900.	25 "	115 68
Lewis Point	J. G. Scrimigeour	Oct. 14, 1896.	25 "	
McGee's Wharf, Abram's Vill.	Norman Gallant	Nov. 9, 1891.	25 "	
Mink River or Murray Harbour, North	Jas. P. Clow	Aug. 25, 1900.	25 "	8 30
Murray Harbour, South	J. McKinnon	Jan. 27, 1896.	25 "	
Nine Mile Creek	Edward Harrington	Oct. 29, 1885.	25 "	
North Cardigan	Rodk. J. Steele	May 1, 1901.	25 "	43 40
Pinette	Malcolm McLeod	Jan. 3, 1901.	25 "	20 36
Pownal	M. M. Haley	Oct. 13, 1896.	25 "	73 69
Red Point	Arch. Smith	Apr. 3, 1900.	25 "	18 06
St. Mary's Bay	John Dickson	Dec. 10, 1896.	25 "	23 79
Souris	Angus McDonald, caretaker	Sep. 27, 1894.	25 "	
South Rustico, Oyster Bed Bridge	D. Gallant	Feb. 23, 1895.	25 "	8 62
Sturgeon Pier	Bernard Kearney	Sep. 18, 1885.	25 "	44 31
Tignish	A. J. Gaudet	Aug. 28, 1898.	25 "	22 13
Vernon River	W. M. Forbes	Apr. 22, 1902.	25 "	177 58
Wood Island	Jas. Young	" 10, 1899.	25 "	17 96
			Total	1,390 67

RECAPITULATION.

Ontario		$ 3,554 77
Quebec		3,433 40
Nova Scotia		4,591 37
New Brunswick		1,015 58
Prince Edward Island		1,390 67
Total wharfage dues collected and placed to credit of Receiver General		$ 13,985 79
ADD—Fees received by undermentioned harbour masters in excess of remuneration allowed:—		
Harbour Master—St. Johns, Que	$ 166 50	
" Canso, N.S	61 00	
" International Pier, N.S	89 00	
" Chatham, N.B	22 50	
" Hillsborough, N.B	88 90	
" Chemainus, B.C	55 00	
" Victoria, B.C	15 59	
		498 49
Total Revenue from Wharfs and Harbours		$ 14,484 19

APPENDIX No. 9.

NAVAL ASSISTANT'S OFFICE,
HALIFAX, N.S., October 10, 1902.

The Deputy Minister,
Marine and Fisheries Department,
Ottawa.

SIR,—I have the honour to make the following report on the life saving stations in the Maritime Provinces, Sable Island excepted, that establishment being under the inspection of Mr. C. A. Hutchins, superintendent of lighthouses in the province.

INSPECTION OF STATIONS.

The whole of the stations have been inspected by me during the year, and I have much pleasure in stating that with one exception, Duncan's Cove, they are in an efficient state, discipline has been maintained, and a zealous desire on the part of the officers in charge has been manifested to keep the stations thoroughly reliable in the event of wreck.

SERVICES AT WRECKS.

Three casualties of importance have occurred during the year.

The *Mira*, a steamship, near Yarmouth, in February last.

The Allan steamship *Grecian*, at the entrance of Halifax Harbour, in the same month, and

The steamship *Lake Superior*, at the entrance of the harbour of St. John, N.B., in April last.

At neither of these casualties were the services of the life boats near them, required, but at both Yarmouth and Halifax, the officers in charge visited the ships ashore and were ready to act if necessary.

Other minor disasters have taken place, and the coxswains, where necessary, have tendered their services.

HERRING COVE.

The launching ways at this station require extensive repairs, and number of rocks off the slip must be removed.

DUNCAN'S COVE.

The old Dobbin self-righting self-bailing boat, requires extension repairs, as the boat is old, extremely heavy, bad to pull against wind and sea, I consider she is not worth repairs.

This type of life boat, with high ends for self-righting purposes, has become obsolete. The boat is costly, $575, more than double the price of the Bebe McLellan self-bailing boat at $250, which is eminently adapted for our stations, as she is safe, light for launching and hauling up, and manageable with a crew of six men and a coxswain.

The Dobbin boat is practically useless in a gale of wind and heavy sea from the offing.

I have, therefore, in another report, thoroughly advocated the condemnation of the Dobbin boat at Duncan's Cove, and the building of a Bebe McLellan boat, similar to those recently placed at St. Paul's Island, Blanche, Clark's harbour, and Seal cove, Grand Manan.

All these boats are preferred by the officers and crews to the Dobbin class of boat.

Lyle Gun Apparatus.

Great difficulty has been found in reference to this class of gun.

At Duncan's Cove, early last year, after drill practice with small charges of powder —only five ounces— the gun contracted and one of the projectiles, after entering it, became jammed in the gun.

Using two double luff tackles with the fall taken to a powerful winch, with seven men at the handles, I found it impossible to extract the projectile.

The gun was then taken to H.M.S. *Charybdis*, Commodore Giffard having kindly allowed his armourers' staff to release the projectile by heating the gun sufficiently to cause its expansion.

Subsequently the gun was bored to take the projectiles. I may here state that strict orders have been issued by me, to the officers at St. Paul's Island and at Duncan's Cove, to keep the guns and projectiles free from oxidisation by careful cleaning, and lubricating them with vaseline. And I know from personal inspection that this has been done.

Notwithstanding this, on my recent visit to Duncan's Cove, the coxswain reported to me that the Lyle gun at that station was absolutely useless, as he found it impossible to enter the projectiles further than 8 inches from the muzzle, the projectiles being 14 inches in length, it was 6 inches from the chamber in the breach.

I personally tested the 12 projectiles, and found this to be the case.

I therefore took the spare gun, the one that had been rebored, from the Marine and Fisheries Stores, to Duncan's Cove, and tested it with 5 and 8 ounce charges, and I am glad to say, the projectiles entered easily after the gun had been carefully cleaned after each discharge.

Careful sponging and cleaning is evidently essential to the effective working of the Lyle gun, as the bore is very slightly larger in diameter than the projectile used, the latter fitting as closely as a plunger in a metallic pump.

As stated before, the gun now at the Duncan's Cove Station, is the one that was purchased last year, and was rebored to fit the projectiles used by the Messrs. Longard Brothers.

On my recent visit, I again tested the gun, which, although perfectly clean and bright, will not admit the projectiles and I propose having it rebored to the same gauge as that above referred to.

Lately I was informed by Mr. John Campbell, the son of the superintendent at St. Paul's Island, that they are in the habit of cleaning the Lyle gun at that station, after drill, with boiling water. This may be practicable at the station, but it is evident it could not be adopted on service at wrecks on the coast remote from houses, or in bad weather.

But, in order to keep the guns perfectly clean and bright, I intend to supply the stations with elastic sponges and cleaners.

I have the honour to be, sir,
Your obedient servant,

BLOOMFIELD DOUGLAS, R.N.R.,
Naval Assistant.

LIFE Saving Stations maintained

Number.	Stations.	Established	Coxswain.	Crew.	Coxswain's Salary. Per annum.	Pay of Crew.
					$	
	Bay of Fundy—					
1	Seal Cove	1898	F. Benson	7	75	$1.50 per drill, and extra when engaged saving life.
2	Yarmouth	1886	A. Cain	7	75	" " ..
3	Mud Island	1887	J. Pitman	.....	80	.....
4	Seal Island	1880	H. Hitchens	7	250	$100 each of crew per annum.
	Atlantic Coast—					
5	Clark's Harbour	1900	J. M. Kenny	7	75	$1.50 per drill, and extra when saving life.
6	Blanche	1895	W. A. B. Smith.	7	75	" " ..
7	Port Mouton	1889	J. Frowell	7	75	" " ..
8	Duncan's Cove	1886	J. W. Holland	7	75	" " ..
9	Herring Cove	1885	J. Gorman	7	75	" " ..
10	Halifax	1900	.....	.....	.....	No crew here
11	Devil's Island	1885	G. de Young	7	75	$1.50 per drill, and extra when saving life.
12	White Head	1890	H. P. Munroe	6	75	" " ..
13	Sable Island	1885	G. Soderberg J. Ritcey	... ...	250 225	Paid as island staff
14	Scatterie Island	1885	F. Martell	7	75	$1.50 per drill, and extra when saving life.
	Gulf of St. Lawrence—					
15	St. Paul's Island	1885	Supt. Humane Establishment.	3	.....	$300 each per annum
16	Pictou Island	.....	Alex. Currie	7	75	$1.50 per drill, and extra when saving life.
17	Cape Tormentine	1893	No organized crew.	.....	.....	.....
	Great Lakes—					
18	Wellington	1883	"	.....	.....	$1.50 per drill, and extra when saving life.
19	Consecon	1898	W. A. Young	7	75	" " ..
20	Cobourg	1882	D. Rooney	7	75	" " .
21	Port Hope	1889	W. T. Clarke	7	75	" " .
22	Toronto Island	1883	Wm. Ward	7	75	" " ..
23	Long Point	1902	Geo. Wisner	*7	†75 & 40	$1.50 per drill, and $40 per month for three months.
24	Port Stanley	1885	Wm. Berry	7	75	$1.50 per drill, and extra when saving life.
25	Point Pelee	1900	W. A. Grubb, jr	7	75	$1.50 per drill, and extra when saving life.
26	Goderich	1886	J. R. Craigie	7	75	$1.50 per drill, and extra when saving life.
27	Collingwood	1885	P. Doherty	7	74	" " ..

*Crew at Station permanently for three months during autumn. †$75 and $40 per month for three

by the Dominion Government.

Description of Boat.	Cost.	Where Built.	Equipment.	Remarks.
	$			
Beebe-McLellan surf-boat, self-bailing 25 feet long.	250	Shelburne, N.S..	Full regulation	Iron rails laid in 1900.
Dobbin's pattern, self-bailing and self-righting, 25 feet long.	575	Dartmouth, N.S.	" ..	
Fishing boats and dories.....	80 pr.an.	....	Ordinary.....	Kept by contract with fishermen.
Beebe-McLellan boat on east side, surf-boat on west side.	375	Halifax, N.S....	Full regulation	
Beebe-McLellan, self-bailing, 25 feet long, low ends.	250	Shelburne, N.S..	" ..	Boat house and gear cost $700.
Beebe-McLellan, surf-boat, self-bailing 25 feet long.	250	Dartmouth, N.S.	" ..	New boat in 1901.
Dobbin's pattern, self-righting and bailing 25 feet long.	575	" ..	" ..	
" " ..	575	" ..	" ..	Lyle gun established here in 1900.
" " ..	575	" ..	" ..	
" " ..	375	" ..	Ordinary.....	This is a spare boat which can be used with volunteer crew when required.
" " ..	575	" ..	Full regulation	
" " ..	575	" ..	" ..	Lyle gun.
Two Dobbin,s self-righting and bailing boats and one Beebe-McLellan surf-boat, self-bailing.	1,100	Halifax, N.S....	" ..	Lyle gun and rocket apparatus kept here. Coxswains are under the control of Superintendent of Humane Establishment.
Dobbin's pattern, 25 feet long, self-righting and bailing.	500	Dartmouth, N.S.	" ..	
Beebe-McLellan, self-bailtng, 25 feet long, low ends.	250	Shelburne, N.S..	Full equipme't	Lyle gun added in 1900.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	Dartmouth, N.S.	" ..	
Boats of winter mail service.....	....		Ordinary.....	
Dobbin's pattern, self-righting and bailing.	750	Buffalo, N.Y....	Full equipme't	Removed from Poplar Point in 1900.
" " ..	750	" ..	" .	Removed from Wellington in 1893.
" " ..	575	Goderich, Ont..	" .	
" " .	620	" ..	" ..	
" " ..	600	" ..	" ..	New boat 1895.
Surf boat.	330	Collingwood. ...	" ..	New station and new boat, 1902.
Dobbin's pattern, self-righting and bailing, 25 feet long.	575	Goderich, Ont..	" ..	Removed from Pelee Island in 1899.
Surf boat.....	330	Collingwood	" ..	Boat house removed from Point up 200 yards and tramway built.
" " ..	330	" ..	" ..	New boat, 1902.
Beebe-McLellan self-bailing surf-boat.	375	" .	" ..	New boat in 1896.

months while permanently at Station.

APPENDIX No. 10.

STATEMENT of Sick Mariners' Dues collected for the fiscal year ended June 30, 1901.

Quebec.	$ cts.
Gaspé	188 55
Montreal	9,741 66
Paspebiac	251 00
Percé	79 79
Quebec	7,267 66
Rimouski	253 00
St. Armand	21 42
St. Johns	1,377 20
Stanstead	22 22
Three Rivers	561 42
Total	19,763 92
New Brunswick.	
Bathurst	306 80
Chatham	1,277 70
Dalhousie	895 68
Moncton	1,447 38
Newcastle	638 26
Sackville	167 84
St. John	8,323 78
St. Stephen	172 70
Total	13,230 14
Nova Scotia.	
Amherst	524 60
Annapolis	149 54
Antigonish	4 74
Arichat	68 83
Baddeck	13 04
Barrington	5 30
Canso	172 02
Digby	144 44
Halifax	9,192 80
Kentville	127 48
Liverpool	93 12
Lockeport	17 34
Lunenburg	471 48
North Sydney	1,181 20
Parrsboro'	783 14
Pictou	612 24
Port Hawkesbury	114 12
Port Hood	15 66
Shelburne	159 92
Sydney	5,444 04
Truro	1 54
Weymouth	126 46
Windsor	864 96
Yarmouth	479 54
Total	20,767 55
Prince Edward Island.	
Charlottetown	390 40
Summerside	64 44
Total	454 84
British Columbia.	
Nanaimo	4,148 22
New Westminster	138 62
Vancouver	2,112 04
Victoria	5,499 76
Total	11,898 64
Total	66,115 09
LESS—Refunds	261 26
Grand total	65,853 83

APPENDIX No. 11

STATEMENT giving Names and Stations of Light Keepers, &c., in the Dominion.

ABOVE MONTREAL.

Name.	Station.	Appointed.	Salary.
			$ cts.
Acton, Jas. A.	Burnt Island	April 12, 1890	250 00
Armstrong, John	Kaministiquia River	" 28, 1894	200 00
Alexander, Andrew	Lamb Island	May 1, 1897	400 00
Aitken, James H.	Stonehouse Point	July 25, 1900	250 00
Allard, Michel	Lake St. Louis, Light-ship No. 3	June 3, 1901	300 00
Baker, Henry F	Clapperton Island	Dec. 2, 1895	350 00
Boyd, Robert P.	Cole Shoal	April 9, 1884	250 00
Boyd, Wm. S	Griffith Island	May 14, 1889	350 00
Butler, Silas L.	Port Dover	July 15, 1897	300 00
Baxter, Wm. R.	Brebeuf Island	June 6, 1901	375 00
Beaulieu, Octave	Point à Cadieux	July 26, 1892	150 00
Boucher, François	Aylmer, Island	Nov. 17, 1882	175 00
Bamford, Robert	Wilson's Channel, Algoma	June 21, 1888	250 00
Bertrand, Felix	Lower End Coulonge Lake	Mar. 16, 1885	100 00
Boyd, Wm. M.	Kagawong	April 13, 1893	72 00
Boyter, A. B.	Narrow Island	Jan. 3, 1898	250 00
Boyter, David	Little Current	April 22, 1902	350 00
Brown, Adam	Red Rock, Parry Sound	May 25, 1899	450 00
Ball, J. H.	Manitoulin Island Light and Fog Alarm	" 7, 1900	600 00
Black, W. H.	Kingsville Range	July 29, 1902	150 00
Bratt, James	Middle Ground, Pelee Passage	Aug. 15, 1902	400 00
Butchart, Daniel	Tobermoray	Aug. 28, 1901	130 00
Campbell, Thos.	Burlington Beach	April 1, 1875	350 00
Collins, Allen	Christian Island	Mar. 25, 1891	*425 00
Cross, Manly R.	Gananoque Narrows and Jack Straw Shoal	Aug. 25, 1896	480 00
Campbell, Robert	Goderich	June 9, 1886	400 00
Currie, Geo.	Isle of Coves	April 1, 1878	†650 00
Craig, Wm.	Thunder Cape	May 17, 1892	600 00
Cook, Seldon B.	Long Point Light and Fog Alarm	June 9, 1897	700 00
Campbell, John	McTavish Point	Nov. 18, 1896	100 00
Clark, Arthur Geo.	Nottawasago Island	July 5, 1890	500 00
Crevier, Dolphis	Pointe Claire	May 11, 1888	200 00
Cartier, H. J.	River Thames	Oct 19, 1884	425 00
Cooper, John	Port Arthur	" 14, 1882	300 00
Cosgrove, George	Victoria Island, Lake Superior	Nov. 14, 1889	350 00
Columbus, Christopher	Penetanguishene and Whiskey Island	Mar. 18, 1893	300 00
Conover, Forrest H. C.	Leamington	April 14, 1883	150 00
Cox, John	Morrison's or Hawley's Island	June 22, 1887	100 00
Chabot, Joseph	Papineauville Range Lights	" 17, 1897	100 00
Connors, Frank	Point Pleasant	Oct. 13, 1898	200 00
Chase, H. J	Weller's Bay	Nov. 4, 1898	150 00
Crespin, Vital	Lake St. Louis, Light-ship No. 2	June 3, 1901	300 00
Cree, James J	Middle Ground, Pelee Passage	Sept. 3, 1902	300 00
Daviaux, Joseph	Corbay Point, Batchewana	May 27, 1890	350 00
Durnan, George	Gilbraltar Point	" 31, 1854	625 00
Daviaau, Hyacinthe	Michipicoten Island	July 1, 1881	400 00
Doanst, Dosithée	McKie's Point	Sept. 22, 1893	175 00
Davis, John H	Pidgeon Island	May 16, 1896	350 00
Dick, Andrew	Point Porphyry	Aug. 10, 1880	400 00
Dutcher, Samuel	Meaford	May 7, 1877	150 00
Darling, Thomas	Nipissing, South-east Bay Beacon Light	July 1, 1890	60 00
Dixon, Joseph G.	Lake Rosseau	" 21, 1890	100 00

*Allowance $10 †Allowance $100.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

ABOVE MONTREAL—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Dempsey, J. Frank	Potter's Island Pole Light	June 14, 1892..	*10 00
Demers, Wilbrod	Caribou Island, Lake Superior	May 10, 1899..	800 00
Ead, Mrs. C	Port Stanley	Aug. —, 1890..	300 00
Felan, Maurice	Oakville Pier	April 28, 1894..	150 00
Fortier, David H. A	Port Colborne Range Lights and Fog Alarm	" 11, 1865..	550 00
Fellowes, W. R	Rondeau Harbour	Dec. 18, 1888..	350 00
Filiatreault, Thomas	Coteau Landing	May 27, 1890..	140 00
Fraser, John	Wind Mill Point	Dec. 13, 1901..	180 00
Fortier, Theodore	Middle Ground-Pelee Passage	Sept. 31, 1902..	250 00
Grignon, Xavier	Beauharnois	Mar. 16, 1885..	†200 00
Gloude, Benjamin	Pointe Claire	Sept. 7, 1872..	300 00
Gillespie, Wm	Wolfe Island	Mar. 16, 1885..	250 00
Gauthier, Charles	St. Placide	May 1, 1874	140 00
Gordon, Robert	Cobourg Pier	" 16, 1883..	180 00
Griffith, Alfred H.	Giant's Tomb	Sept. 17, 1898..	250 00
Gorley, John, jr	Manitowaning	July 3, 1900..	150 00
Gilbert, Philip	Wiarton Pole Light	Sept. 5, 1902..	75 00
Hackett, Mrs. A	Bois Blanc	June 27, 1901..	435 00
Hudgins, James M	False Ducks	April 28, 1894..	350 00
Hamilton, John	Hamilton's Island	Sept. 3, 1873..	130 00
Hill, Thomas H	Lancaster Pier	July 1, 1877..	325 00
Haitze, Jean	Lonely Island	May 11, 1885..	450 00
Hunter, David	Port Dalhousie	Oct. 29, 1879..	350 00
Hawkins, David B	Peninsula Harbour	Aug. 31, 1891..	400 00
Harvey, James	Thessalon	Nov. 22, 1897..	250 00
Hughes, Wm	Red River Range Lights	——— —, 1885..	250 00
Hamilton, Thos	Pie Island, Port Arthur	April 15, 1899..	75 00
Humes, David	Stribling Point Range Lights	Sept. 1, 1902..	180 00
Johnson, Isaac S	Cherry Island	Nov. 5, 1883..	300 00
Jeffrey, Carson	Nigger Island Shoal	April 28, 1894..	200 00
Kinney, James	Gore Bay	July 27, 1895..	350 00
Kennedy, James	Allumette Island	May 23, 1887..	100 00
Lambert, Wm. McGregor	Chantry Island	Oct. 1, 1880..	500 00
Labelle, Louis	Deep River Island	May 5, 1897..	100 00
Lamorendière, Pierre Régis de	Killarney	Sept. 24, 1880.	400 00
Léger, Thomas	Lachine Pier	July 14, 1897..	250 00
Lamondin, Louis	Byng Inlet	" 30, 1901..	375 00
Lee, John	Southampton	Oct. 7, 1882..	150 00
Lockerbie, Andrew	Collingwood Harbour	May 4, 1883..	300 00
Low, Robert	Thornbury	April 12, 1887..	80 00
Lowry, Robert M.	Port Elgin	Mar. 14, 1896..	80 00
Lumsden, A	Lake Temiscamingue Lights	Oct. 6, 1890..	250 00
Lidwill, John R	Pelee Island	July 10, 1899..	300 00
Lawson, Colin P	Middle Island	Oct. 17, 1898..	240 00
Lamdon, John A	Spectacle Shoal and Red Horse Rock	Nov. 27, 1901..	300 00
Lacroix, H	Oka	.....	.....
Leroux, Moses	St. Francis Middle Ground	May 21, 1902.	100 00
Laberge, Albert	Green Shoal	" 20, 1902..	200 00
Mullin, Michael	South River, Muskoka	May 8, 1900 .	80 00
Munroe, John Jacob	Lancaster Bar	June 8, 1892..	300 00
Moreland, F	Nine Mile Point	April 1, 1895..	200 00
Masson, Lucas H	Pointe aux Anglais	Sept. 4, 1897..	200 00
Mongeon, Charles A	Way Shoal	May 23, 1887..	100 00
Matheson, Norman	Cape Robert, Algoma	Oct. 7, 1896..	350 00
Miller, John	Port Crédit	Dec. 16, 1897..	150 00
Morriseau, Jonathan	Hooper's Point	Mar. 24, 1898..	150 00

* Per month while light in operation. † Allowance for assistant, $60.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

ABOVE MONTREAL.—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Manson, John	Colchester Reef	June 9, 1886	600 00
Morrisseau, Michael	Rainy River, Algoma	June 9, 1886	*250 00
Martin, Wm. J	Spanish River	July 5, 1890	250 00
Miron, Louis	Gargantua	Oct. 26, 1889	450 00
Murray, Wm	Barryfield Range Lights	May 17, 1900	150 00
Montgomery, Wm	Toronto Harbour, Eastern Channel	Oct. 16, 1895	300 00
Matheson, Daniel	Black Bear Island, Manitoba	June 22, 1889	150 00
Magnusson, August	Gull Harbour, Lake Winnipeg	Sept. 19, 1898	150 00
Mallette, B	Lake St. Louis Lightship No. 1	April 30, 1901	250 00
Masson, F. E	Long Point, West End	June 3, 1901	400 00
Manders, Samuel	Paquet, Rapids	July 26, 1901	100 00
Martin, Edward	Michael's Bay	June 3, 1902	120 00
Michigan Land & Lumber Co.	Blind River	Sept. 8, 1900	80 00
McKillop, John	Campbell's Island	April 2, 1892	150 00
McIntosh, John	Arnprior Island	" 2, 1892	150 00
McKenzie, John	Presqu'Isle	July 14, 1873	100 00
Mcdonald, Murdock	Point Clark	Jan. 8, 1897	375 00
Mcdonald, Amos	Salmon Point	July 12, 1897	300 00
McKillop, Donald	St. Anicet Shoal	June 8, 1892	230 00
McLaren, Allan J	Brown's or Knapp's Point	Feb. 11, 1896	180 00
McKay, Chas. S	Battle Island	Aug. 27, 1877	500 00
McIntosh, Daniel	South Bay Point	Oct. 1, 1881	200 00
McKenzie, Wm	Strawberry Point	May 17, 1893	300 00
McQuestion, Mrs. Maria	McQuestion Point	June 9, 1886	100 00
McAulay, Donald	Saugeen River	Mar. 16, 1899	80 00
McDonald, Lauchlin, D	Mississagua Island	May 16, 1896	450 00
McCool, James	Fort William Beacon Light, Ottawa River	" 23, 1887	90 00
McDavitt, Chas	Point au Baril	Mar. 1, 1897	300 00
McKay, John	Lyal Island	Oct. 27, 1884	450 00
McLean, Arch	Owen Sound	Dec. 23, 1897	126 00
McGaw, Thos	Kincardine	June 13, 1899	375 00
McDougall, Neil	Squaw Island	April 25, 1901	150 00
McKinnon, R. F	Point aux Pins	Mar. 20, 1902	250 00
Ouellette, Godfrey	Buckam's Point	May 1, 1884	180 00
O'Brien, Matthew	Frenchman's Bay	Oct. 13, 1898	125 00
O'Conner, P	Bishop's Bay, Algoma	April 13, 1899	150 00
Purvis, John	Great Duck Island Light and Fog Alarm	Mar. 9, 1898	†500 00
Pettypiece, Stephen	Lime Kiln Crossing	May 11, 1888	350 00
Prosser, John	Muskoka or Fox Island	Sept. 14, 1896	250 00
Plunket, H. E	Swampy Island, Lake Winnipeg	Oct. 12, 1884	350 00
Proudfoot, Thos	Neebish, St. Mary's River	Nov. 4, 1898	100 00
Root, Albert	Grenadier Island	Dec. 15, 1863	250 00
Roddick, Robert	Gull Island	Mar., 1872	500 00
Rowe, Geo Albert	Telegraph Island	Oct. 25, 1895	200 00
Robillard, Honoré	Isle Perrot	Jan. 25, 1897	100 00
Redmond, William H	Gravenhurst Narrows	June 18, 1894	100 00
Rains, Evan	Shoal Point, Algoma	Nov. 24, 1884	250 00
Rains, A. M	Sailor's Encampment	Aug. 1892	‡ 7 00
Rains, W. W	Westfield Range Light	" 1892	‡ 7 00
Ritchie, James	South Bay Range Lights	" 20, 1898	150 00
Rowan, James	Victoria Island, Galetta	Dec. 3, 1898	100 00
Richardson, Wm. J	Michipicoten Hr., Algoma	Sept. 27, 1900	200 00
Richardson, Thos. J	Western Islands Light and Fog Alarm	June 27, 1901	700 00
Robidou, Alex	Cornwall Dyke (St. Regis)	May 31, 1902	100 00
Richmond, John A	Snug Harbour	Oct. 7, 1902	350 00
Sommers, Napoleon	Midland Range Lights	June 19, 1900	150 00
Shannon, William	Gross Point	Sept. 27, 1866	**425 00
Shannon, George	Assistant	" 27, 1866	175 00
Seguin, Grégoire	L'Orignal	May 8, 1894	100 00

*Allowance $30. †Allowance for assistant, $200, attending Fog alarm. ‡Per month while light in operation. **Allowance $10.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

ABOVE MONTREAL—*Concluded.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Smithers, R. O	Mohawk Island	Mar. 31, 1896	400 00
Sutherland, Jno	Port Burwell	June 18, 1894	225 00
Schofield, Fergus	Port Maitland	April 10, 1871	350 00
Simpson, Hedley V	Presqu'Isle Range Lights	May 11, 1888	540 00
Smith, H. E	Presqu'Isle, Main Light	April 29, 1898	350 00
Shepperd, Mrs. Wm., acting keeper	Sulphur Island, Range Light	Aug. —, 1890	300 00
Sullivan, Silas	Baskin's Wharf	Dec. 22, 1896	130 00
Sauvé, Honoré	Caron's Point	Feb. 16, 1889	60 00
Stoneburner, John A	Cornwall Canal, upper entrance	April 12, 1890	100 00
Smith, Donald	Flower Pot Island	Nov. 8, 1897	300 00
Spencer, D. O	Scotch Bonnet	Aug. 8, 1898	350 00
Scott, Guy J	Point Peter, Light and Fog Alarm	June 6, 1901	650 00
Scott, Wm. J	Corunna, Range Lights	April 23, 1901	120 00
Stacker, Jos. L	Ste. Anne de Bellevue	May 20, 1902	*125 00
Sweeney, Thomas	Tomahawk Island	Sept. 19, 1902	150 00
Taylor, Ross	Stag Island, River St. Clair	July 13, 1900	150 00
Taylor, Edward	Parry Sound, Range Lights	June 3, 1901	350 00
Tebo, Joseph	North Sister Rock	May 20, 1902	350 00
Veech, Stannes	Nine Mile Point: light-keeper and engineer of fog alarm	Mar. 7, 1894	450 00
Valee, Charles	Hope Island	April 20, 1899	450 00
Wallace, John G	Lindoe Island	July 1, 1881	250 00
Winthrop, Robert W	Head of Dechêne Rapids	April 13, 1891	100 00
Wootton, Edward	Niagara, Fog Bell	July 11, 1887	50 00
Webster, Chas	Cabot's Head, Light and Fog Alarm	May 10, 1898	650 00
Whitmarsh, John	Snake Island	July 18, 1900	350 00
Weir, John C	Belleville	April 4, 1901	200 00
Wemp, Daniel	Centre Brother Island	Jan. 9, 1901	200 00

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC.

Arcand, Elzéar	Cap de la Madeleine	May 17, 1892	80 00
Arcand, Alfred	Seven Island	" 20, 1898	500 00
Ascah, James	Fame Point, Gaspé Co	Sept. 2, 1880	700 00
Bertrand, Louis	Champlain Pole Light	" 12, 1902	60 00
Beaudet, Fulgence	Lotbinière (1)	June 1, 1895	80 00
Beaudet, George	Lotbinière (2)	Jan. 4, 1883	80 00
Beaudet, Charles	Platon	Aug. 24, 1894	†120 00
Bourque, Peter	Bird Rocks	Nov. 27, 1896	1,300 00
Bouilliane, Pierre	Lark Islet	Sept. 1, 1872	200 00
Bertrand, Auguste	Macquereau Point	Dec. 21, 1877	300 00
Banville, Joseph	Matane	Feb. 1, 1897	‡250 00
Bourget, F	Percé Roadstead	Mar. 18, 1893	200 00
Breton, Narcisse	Point Rich	May 16, 1896	500 00
Bourget, Charles	Cape Despair	Nov. 1, 1897	§400 00
Bisson, Wm	Grand River	Oct. 22, 1896	§150 00
Bergeron, George	River Valee	June 16, 1885	70 00
Bouchard, Louis	Cap au Saumon, Lighthouse and Fog Alarm	May 16, 1896	600 00
Beaulieu, Jos. Hudon dit	Pointe aux Originaux	April 7, 1875	250 00
Boucher, Louis	Isle aux Raisins	" 13, 1898	240 00
Bélanger, H	St. Thomas Wharf	" 4, 1898	80 00
Bujold, Louis	Carleton Point	May 25, 1899	250 00
Boisvert, Alcide	Cape Charles	July 23, 1901	150 00
Baron, Amedee	Cap Charles	June 26, 1901	70 00
Bouchard, Geo	St. Irenée	Aug. 31, 1901	40 00
Bourget, Félix	Verchères Village (Back)	April 21, 1902	70 00

* Allowance $25. † Has also charge of Back Rock Range Light at $5 per month.
‡ Allowance $100. § Allowance $30.

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-keepers, &c —*Continued.*

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Bergeron, Nap.	St. Antoine de Tilly	Mar. 21, 1902	80 00
Bordua, Philéas	Ile Deslauriers	April 21, 1902	120 00
Bourdages, Louis	Point Eschourie	Oct. 7, 1902	60 00
Carignan, L. P.	Champlain Main Light	" 1, 1892	80 00
Cornier, Wm	Amherst Island	April 26, 1871	*300 00
Colton, P. J	Belleisle	" 1, 1882	1,100 00
Côté, Luc	Cape Chatte	Dec. 3, 1901	‡300 00
Campbell, John W	Cape Norman, Lighthouse and Fog Alarm	April 12, 1890	720 00
Costin, Eugène	Cape Rosier	Nov. 4, 1890	800 00
Chamberlain, H.	Oak Point, Range Lights	April 19, 1900	75 00
Collins, Geo. F	Entry Island	Feb. 28, 1901	250 00
Chenel, John	Grand Entry, Mag. Island	July 4, 1901	50 00
Chabot, Edouard	Pointe St. Laurent	Aug. 1, 1880	300 00
Chiasson, Edward	Etang du Nord	Oct. 22, 1896	350 00
Croteau, Télesphore	St. Croix, Front Range	Mar. 28, 1901	70 00
Chicoine, F. Xav	Verchères Traverse (front)	April 21, 1902	80 00
Charbonneau, Philéas	" " (back)	April 21, 1902	70 00
Dubreuil, Hector	Pointe aux Trembles	Feb. 18, 1897	130 00
Desmarais, Philéas	River St. Francis	July 2, 1897	§20 00
Duperie, Alfred J	Pointe aux Joncs	May —, 1873	40 00
Dubois, Octave	Flower Island, Strait of Belle Isle	Oct. 14, 1899	500 00
Demers, Alphonse	Pointe à Basil	Feb. 6, 1901	100 00
Danville, Elzéar	"	" 6, 1901	100 00
Doré, François	St. Antoine Lotbinière	Mar. 21, 1902	120 00
Electric Light Company	Roberval Beacon Light (2)	June —, 1898	60 00
Fournier, Alfred	Upper Traverse	April 14, 1900	600 00
Fugère, Léandre	Batiscan (1)	" 19, 1868	80 00
Fugère, Napoléon	" (2)	Jan. 10, 1887	80 00
Fiset, Jean H.	Lake St. Peter Light-ship No 2	April 22, 1875	500 00
Fontaine, Edouard	Cape Bauld Lighthouse and Fog Alarm	Nov. 1, 1892	800 00
Faffard, Victor	Pointe de Monts	Aug. 1, 1889	‖400 00
Fraser, Pierre T.	Red Island	April 12, 1890	*450 00
Fagot, George	Greenly Island Lighthouse and Fog Alarm	June 30, 1890	800 00
Ferland, Nap.	St. Petronille	Sept. 3, 1901	150 00
Gervais, Ovila	Contrecœur (1)	Mar. 1, 1877	100 00
Giguère, Denis	Lavaltrie	April 24, 1870	300 00
Galibois, Jean B.	Bellechasse	June 23. 1880	320 00
Goudreault, Jos. M.	River Caribou	———, 1874	40 00
Gauthier, Francis	Pointe aux Joncs	April —, 1872	40 00
Goudreault, Abraham	Eboulements Pole Light	May 10, 1882	40 00
Grenier, Solomon	Newport	June 3, 1897	120 00
Guyon, Joseph	Verchères Village (front)	April 21, 1902	80 00
Gilbert, F. E.	Rivière du Loup (wharf)	Sept. 22, 1902	70 00
Hébert, Moise M	Cap de la Madeleine	May 11, 1888	80 00
Harvey, André	Chicoutimi Wharf	" 30, 1889	40 00
Huot, Joseph	L'Ange Gardien	Aug. 1, 1885	70 00
Heroux, Didié	Lake St. Peter Light-ship No. 3	April 13, 1898	400 00
Irvine, John	Red Island Light-ship	Mar. 2, 1900	***500 00
Kennedy, Thomas	Gaspé Light-ship		
Laflèche, Désiré	Lake St. Peter Light-ship No. 1	April 12, 1887	400 00
Lachapelle, Jean B.	Repentigny (2)	Feb. 1, 1861	75 00
Langlois, Antoine	River du Chêne	July 11, 1888	100 00
Laliberté, Arthur	Ste. Emelie, Front Range	Sept. 24, 1880	70 00
Lebel, Esdras	Lower Traverse Light-ship	April 21, 1900	2,300 00

* Has allowance of $50 for fuel, &c. ‡ Allowance $200. ‖ $200 for attending signal gun, &c.
§ Per month. ** Allowance, $1,900.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
Leclerc, P. M.	Ste. Emelie, Back Range	April 8, 1899..	80 00
Lavoie, M	St. Fulgence	———, 1893..	70 00
LeHuguet, François.	Gaspé Cape	Oct. 22, 1896..	650 00
Lindsay, Wm.	Gaspé Wharf	June 14, 1900..	42 00
Lindsay, Irénée	Green Island	Sept. 25, 1888..	650 00
Loisel, John	Pointe Paspébiac	Aug. 27, 1894..	150 00
LeBlanc, Régis	White Island Light-ship	Jan. 11, 1878..	*500 00
Lemieux, Z	South-west Point, Anticosti	July 19, 1900..	600 00
Lachance, Louis	Port of St. Johns	Sept. 26, 1896..	300 00
Leclerc, Geo	Pillars—Algernon Rock	July 30, 1901..	650 00
Lavoie, F.	Anse St. Jean Wharf	———, 1889..	40 00
Levesque, Arthur	Kamouraska	Feb. 19, 1901..	400 00
Leclerc, Auguste	Martin River	Sept. 3, 1902..	300 00
Mousseau, François.	Port St. Francis	Mar. 27, 1900..	†30 00
Montplaisir, Antoine B.	Cap de la Madeleine	Aug. 6, 1877..	175 00
Mercier, O.	Isle à la Bague	" 31, 1883..	250 00
Malo, Joseph	Isle Ste. Thérèse (1)	Feb. 1, 1897..	130 00
Ménard, Denis	North of Halfway Point	Sept. 12, 1890..	170 00
Marchand, Ferdinand.	Point aux Citrouilles	April 27, 1896..	200 00
Martin, Paul	St. Valentine	April 28, 1873..	150 00
Molson, Mrs. Alexander.	Molson's Island, Lake Memphremagog	From year to year	‡2 50
Malouin, Alfred	Anticosti, West Point	July 1, 1877..	§450 00
Martin, Jules G.	Little Metis	Dec. 23, 1879..	‖300 00
Marceau, Louis	St. Francis	April 1, 1884..	75 00
Maltais, Eli	Murray Bay	May 10, 1882..	50 00
Mayrand, Eugene	Grondines (2)	May 28, 1901..	100 00
Morin, Hypolite	Pilgrims	April 29, 1898..	340 00
Marcotte, P. L	Point Bleue, Lake St. John	Nov. 28, 1898..	40 00
McWilliams, John J	Father Point	June 1, 1876..	200 00
McLaren, Donald	River du Moulin	Sept. 19, 1889..	35 00
McInnis, George	Port Daniel	Oct. 7, 1902..	60 00
Noel, Edouard	Richelieu Light, Lotbinière	April 10, 1899..	150 00
Pelletier, Tancrède	Egg Island	July 1, 1901..	500 00
Paquin, Sylva	Point du Lac	May 2, 1900..	100 00
Paul, Edouard	Isle de Grace	Sept. 7, 1871..	**30 00
Pagé, Celestin	L'Islet Richelieu	Jan. 9, 1895..	150 00
Peters, D. E	Witch Rock, Lake Memphremagog	Oct. 31, 1901..	‡4 00
Peters, J. H.	Green Point	From year to year	‡1 50
Patterson, J. C.	Wadleigh	"	‡1 50
Painchaud, Joseph	Crane Island	Oct. 1, 1864..	320 00
Paquet, Pierre	St. Famile	" 19, 1885..	70 00
Poitras Alexander	Bersmis Range Light	Sept. 21, 1891..	100 00
Pedneau, Pierre	Isle aux Coudres Pole Light	April 6, 1896..	49 00
Poulin, Alfred	St. Famille	" 26, 1898	70 00
Pineault, Louis	Bicquet Lighthouse and Fog Alarm	Oct. 6, 1900..	700 00
Perrault, Henri	St. Pierre les Becquets	May 28, 1901..	70 00
Provonsil, E. M.	Ash and Bloody Island	Mar. 1, 1902..	200 00
Quinn, Thos	Georgeville	May 23, 1902..	$1.50 per wk.
Reeves, Samuel	Isle Ste. Thérèse (2)	Oct. 12, 1870..	270 00
Rivet, Léon L	Repentigny (1)	April 28, 1894..	75 00
Richard, Alphonse	Brandy Pots	Oct. 7, 1878..	400 00
Rennie, E. H.	Cape Ray Lighthouse and Fog Whistle	" 19, 1884..	800 00
Roberge, C. Honoré	St. Pierre Island	" 19, 1885..	70 00
Rodrique, F. F.	Portneuf	Jan. 22, 1858..	275 00
Racette, D.	St. Croix back range lights	Feb. 10, 1900..	70 00
St. Onge, Thomas	Contrecœur	June 14, 1886..	75 00
Salvail, Omer	Isle à la Pierre	May 6, 1897..	220 00

* Allowance, $2,300. † A month during season of navigation. ‡ Per week. § Allowance $250. ‖ Allowance, $20 for fuel and $20 for horse. ** Per month.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

BETWEEN MONTREAL AND QUEBEC AND BELOW QUEBEC—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Simard, Edward	Montée du Lac, and Cape Rouge Beacons	Oct. 28, 1870	400 00
Sasseville, F. J	Cape Magdalen, Lighthouse and Fog Whistle	June 9, 1886	700 00
Simard, Arthur	River Caribou	" 9, 1870	40 00
St. Croix, George	Plateau Rock	Oct. 22, 1896	400 00
Savard, Jno	River Caribou		40 00
Simard, H	St. Anne de Chicoutimi		40 00
Trottier, Widow I	Grondines (1)	Aug. 1, 1872	100 00
Thurber, Mrs. Wm	Ste Croix	March 28, 1901	175 00
Tremblay, W. T	Goose Cape	April 4, 1888	250 00
Tremblay, Dorilas	Portneuf (2)	Feb. 18, 1875	350 00
Tremblay, George	River du Moulin	Sept. 9, 1889	35 00
Trudelle, Ambroise	L'Ange Gardien	Oct. 19, 1885	70 00
Tremblay, Pitre	St. Alphonse Wharf	June 19, 1895	40 00
Tremblay, Henry	Cape l'Aigle Pole Light	Feb. 6, 1896	40 00
Tremblay, Thomas	Bay St. Paul	Oct. 25, 1898	250 00
Tremblay, P. E	Harbour Light Rivière du Loup	May 19, 1900	70 00
Tremblay, Alexis	Heath or East Point, Anticosti	July 25, 1900	600 00
Trudeau, Thadée	Isle Ste Thérèse	April 21, 1902	80 00
Vigneau, Placide	Perroquet Island	Sept. 19, 1892	600 00
Vézina, Oliver	St. Pierre	Oct. 28, 1897	70 00
Whitman, Robert H	Lacolle	May 14, 1883	150 00
Wheeler, W	Lead Mines, Lake Memphremagog	From year to year	*1 50
Wyatt, Thomas	Forteau Lighthouse and Fog Whistle	Oct. 18, 1889	†800 00

NEW BRUNSWICK.

Arseneau, James	Dalhousie	Jan. 18, 1894	100 00
Archer, Wm	North Tracadie	Nov. 7, 1872	275 00
Allain, Joseph	Hay Island, Beacon Light	May 21, 1895	150 00
Balmer, Matthew	Oak Point	April 27, 1900	80 00
Barbour, Jas. G	Cape Enrage Lighthouse and Fog Signal	May 11, 1888	800 00
Bent, A. J. Percy	Cape Jourimain or Cape Tormentine	Jan. 25, 1901	300 00
Blacklock, Fred. G	Cape Spencer	Mar. 5, 1888	400 00
Brown, Charles	Quaco	Nov. 25, 1884	400 00
Bradshaw, L. B	Quaco Fog Alarm	Sept. 3, 1887	400 00
Brune, John David	Goose Lake	May 11, 1888	‡250 00
Boudreau, Jos. B	Petit Rocher	Feb. 26, 1896	150 00
Blakley, Lawrence	Harper's Point	Sept. 9, 1887	75 00
Bellmore, Fredk	Dipper Harbour	Mar. 12, 1895	100 00
Belleveau, Philip T	Folly Point	Nov. 29, 1897	175 00
Cochran, Fredk. M	St. Martin's Wharf, Quaco	Mar. 25, 1892	100 00
Conley, John C	Beaver Harbour	April 2, 1892	250 00
Cummings, Geo	Campbellton Beacon Light	Jan. 1, 1880	100 00
Chapman, James	Baie du Vin Island	July 24, 1882	200 00
Crandall, D. H	Grays Point Pole Light	April 12, 1900	70 00
Carney, John	Perry Point	Sept. 25, 1900	80 00
Copp, Ed. J	Anderson's Hollow	Jan. 14, 1901	100 00
Cormier, Jadus P	Buctouche Sand Bar	July 26, 1902	200 00
Dixon, Elias C	Pea Point	Nov. 16, 1898	250 00
Delaney, John	Grant's Beach	Oct. 7, 1880	125 00
Drake, Jeremiah	St. John Signal Station	Mar. 24, 1881	650 00
Dalzell, Geo. Y	Swallow Tail	" 18, 1893	400 00
Dinsmore, Samuel G	Big Duck Island Fog Alarm	July 5, 1886	550 00
DeGrace, John	Indian Point	June 4, 1889	150 00
Davidson, Warren P	Southern Wolves	Jan. 14, 1897	500 00
Day, W. A	Belyea's Point	Sept. 20, 1899	90 00

* Per week. † Allowance, $75. ‡ Allowance, $12.

STATEMENT giving the Names and Stations of Light-keepers, &c.—*Continued.*

NEW BRUNSWICK.—*Continued*

Name.	Station.	Appointed.	Salary.
Egan, Edward	Bellonie's Point	May 17, 1892	100 00
Frawley, Frank	Point Lepreau Fog Alarm	June 15, 1898	450 00
Flewelling, M	Flewelling's Wharf	April 12, 1890	80 00
Fanjoy, William	Fanjoy's Point	Dec. 15, 1897	80 00
Ferguson, W. G	South Tracadie Gully	Mar. 23, 1898	150 00
Guptill, S. N	Grand Harbour	Oct. 24, 1900	400 00
Gillard, John	Point DuChene Range Lights	June 13, 1888	90 00
Gillespie, David	Hillsborough Pier	Dec. 31, 1892	75 00
Gould, Francis T.	Point Brule Range Lights, Shediac	Jan. 13, 1889 / April 3, 1900	40 00
Hendry, A. M.	Hendry Farm	" 25, 1899	80 00
Hayden, Michael	Pokemouche	Oct. 17, 1888	200 00
Henderson, Arthur	Midjic Bluff	" 5, 1894	200 00
Hamm, Chas. P.	Musquash	Jan. 14, 1879	*300 00
Helms, Geo.	Petit Passage Fog Whistle	May 5, 1882	†400 00
Hachey, Octave	Pokesudie Island	July 12, 1881	180 00
Hagan, E.	Ward's Point	April 12, 1890	80 00
Harvey, W. L	Gannet Rock	May 20, 1898	700 00
Hannah, Mrs. B.	Spruce Point	Sept. —, 1892	120 00
Ingals, Turner	S. W. Head, Seal Cove	Dec. 4, 1900	500 00
Ingersoll, Colin J	Machais, Seal Isd. Light house and Fog alarm	" 30, 1901	1,000 00
Kilpatrick, Joseph	Passamaquoddy Bay	Feb. 3, 1898	350 00
Lantaigne, Gervais	Caraquet Island	June 16, 1888	200 00
Leblanc, Charles P.	Cassie's Point	May 4, 1872	250 00
Looney, Thos. E	Greenhead, St. John River	Oct. 14, 1896	200 00
Mills, George	Lower Fox Island	June 23, 1897	200 00
Morrison, Peter	Oak Point	" 24, 1882	100 00
Morrison, Peter, jr	Portage Island	July 1, 1892	200 00
Morrison, Duncan	Sheldrake Island	Feb. 25, 1880	300 00
Maillet, D. O	Indian Point, Buctouche	July 7, 1883	150 00
Matheson, R. B	Newcastle	April 18, 1898	100 00
Murray, Michael	Middle Island	" 10, 1902	200 00
McLaren, William	St. John Harbour	June 8, 1901	350 00
McLeod, J. H	Bliss Island	Oct. 17, 1900	300 00
McLennan, Kenneth	Escuminac Lighthouse and Fog Whistle	March 7, 1892	750 00
McIntosh, Chas.	Neguac Range Lights	Dec. 19, 1892	100 00
McBaine, Alex	Cox's Point	May 6, 1898	80 00
McMonagle, Miles	Oromocto Shoals	" 26, 1891	80 00
McDonald, R. P	Musquash Island	Jan. 28, 1901	80 00
McMann, Robert Harvey	McMann's Point	Nov. 2, 1901	80 00
McNeil, Henry H	Dalhousie Beacon Lights and Douglas Island Light	Jan. 1, 1880	180 00
McConnell, Robert	Miscou Gully	Sept. 9, 1887	100 00
McLean, R	Miramichi Lt. Ship	April 12, 1902	‡400 00
Nevers, George	Jemseg	Nov. 24, 1884	80 00
Nobles, Israel	Belleisle Point	" 23, 1885	80 00
Purvis, David	No Man's Friend	June 2, 1897	80 00
Preston, S	Preston Beach	July 11, 1889	125 00
Pendlebury, Wm. J	St. Andrews	April 10, 1889	250 00
Pickett, Robert E	Palmer's Point	May 11, 1897	80 00
Parker, Alvin	Mulholland's Point	June 13, 1901	200 00
Palmer, E. B.	Hampstead	Nov. 6, 1900	80 00
Quinton, Wm. M	Mark's Point	April 12, 1890	120 00

* Allowance, $45. † Allowance, $180. ‡ Allowance, $300.

STATEMENT giving Names and Stations of Light keepers, &c.—*Continued.*

NEW BRUNSWICK—*Concluded.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Russell, James R	Grindstone Island	Jan. 13, 1899	700 00
Rivers, Robert	Miscou Light-house and Fog Whistle	April 24, 1877	800 00
Robinson, John	Neguac Beach	June 30, 1896	150 00
Richard, Peter F.	Richibucto	May 30, 1895	185 00
Robertson, Charles M	Robertson's Point	June 30, 1897	80 00
Robertson, Meier	Shediac Island Beacons	Dec. 29, 1873	250 00
Ross, Elijah	Negro Point	March 5, 1878	400 00
Robichaud, Jude	Richibucto Inner Range	June 16, 1902	225 00
Robicheau, Henry B	Dixon Point	June 21, 1884	150 00
Roherty, A	Belledune	Feb. 5, 1895	100 00
Richards, D. L	Partridge Isd. Lighthouse and Fog Whistle	July 19, 1900	800 00
Robertson, J. A. D.	Heron Island	April 1, 1902	200 00
Robichaud, Aug	Shippegan	June 11, 1902	280 00
Richard, Jos. F.	Richibucto Bar Outer Range	" 16, 1902	150 00
Sutherland, Geo. A.	Bathurst Harbour	March 20, 1882	*200 00
Seely, Neil	Head Harbour Lighthouse and Fog Whistle	May 3, 1882	800 00
Scott, Chas. F.	Stonehaven	July 20, 1885	100 00
Thomas, Geo. H	Point Lepreau	Aug. 29, 1884	400 00
Tatton, George T.	Grand Manan Fog Whistle	Oct. 16, 1886	550 00
True, Geo. Howard	Wilmot's Bluff	Sept. 11, 1899	80 00
Upton, Robert	Bridge's Point	" 11, 1899	80 00
Williston, Seymour	Fox Island	June 4, 1902	300 00
Wagner, Richard	Sand Point	June 7, 1883	80 00
Williams, Forrest W	William's Wharf	May 11, 1897	80 00

NOVA SCOTIA.

Amero, Chas. A.	Whitehead Island	Nov. 9, 1897	300 00
Amero, George D.	Pubnico	Feb. 6, 1893	240 00
Amirault, James	Sissiboo	July 11, 1899	200 00
Beaman, Edwin	Digby Pier	May 29, 1897	100 00
Bonner, George	Point Aconi	April 18, 1874	200 00
Burgess, Watson	Port l'Hébert	July 26, 1892	150 00
Boutillier, R. J.	Superintendent of Sable Island	Nov. 13, 1884	†600 00
Boutillier, Henry	Paddy's Head, Indian Harbour	June 6, 1901	100 00
Bollong, James	Pope's Harbour	Aug. 6, 1877	300 00
Bourgeois, Philip	Cheticamp Range Lights	May 23, 1898	150 00
Boudrot, Thomas	Hawk Island, Poulamon	June 19, 1901	250 00
Baker, Thomas	Pease Island	May 19, 1879	350 00
Brackett, Wm.	Herring Cove	Aug. 28, 1897	100 00
Belliveau, John H.	Belliveau's Cove	Feb. 16, 1889	80 00
Brownell, Luther	Cold Spring Head	Mar. 27, 1901	120 00
Brown, James	Cranberry Head Fog Alarm	June 22, 1898	500 00
Buchanan, Angus A.	Neil's Harbour	Aug. 14, 1899	150 00
Buckman, Chas.	North Point, Brier Island	Jan. 7, 1901	200 00
Baird, Fredk.	Caribou Island or Gull Rock	Dec. 30, 1901	300 00
Boudreau, W. C.	Port Felix	July 16, 1902	250 00
Burke, Henry	Country Harbour, Green Island	June 11, 1902	400 00
Chiasson, German	Caveau Point Range Lights	Aug. 20, 1897	120 00
Chiasson, Joseph P.	Grand Entry, Inverness	May 21, 1901	60 00
Crichton, H. H.	Crichton's Head	" 6, 1874	200 00
Crooks, Deman	Liscombe	Oct. 6, 1894	300 00
Connington, Thomas	Louisburg Range Lights	" 26, 1897	150 00
Crowell, John	Seal Island Lighthouse and Fog Whistle	" 14, 1899	800 00
Campbell, Samuel C.	St. Paul's Island, Superintendent	July 17, 1897	‡700 00
Campbell, J. O.	Port Mouton	April 29, 1898	300 00

* Allowance, $10. † With board for self and family. ‡ Allowance $1,400.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

NOVA SCOTIA—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Comeau, Louis C.	Meteghan River Wharf	Oct. 12, 1875.	100 00
Campbell, John.	Red Islands	Nov. 30, 1901.	120 00
Croucher, George A.	Croucher's Island	Jan. 31, 1883.	300 00
Clough, Daniel.	Grandique Pole Light	July 4, 1884.	70 00
Clory, Abraham.	Glasgow Point Pole Light	" 25, 1894.	150 00
Coolen, Joseph, jr.	Westhaver's Point	Aug. 5, 1885.	250 00
Carey, James.	Carey's Beach	" 18, 1886.	60 00
Cameron, L. G.	Beaver Point	Feb. 15, 1902.	150 00
Campbell, John M.	Engineer Fog Alarm, St. Paul's Island	Oct. 26, 1898.	400 00
Christian, John.	Betty's Island	Dec. 12, 1899.	500 00
Creelman, Samuel.	Porte-à-Pique	May 2, 1901.	25 00
Campbell, D. A.	Louisburg Fog Alarm Engineer	Mar. 20, 1902.	500 00
Cunningham, A. H.	Cape Sable	July 16, 1902.	800 00
Clark, Henry A.	Walton Harbour	Aug. 2, 1902.	125 00
Doane, Isaac.	Cape Sable	July 1, 1871.	800 00
Duane, Wm.	Green Island	Oct. 30, 1871.	500 00
Doody, James.	Meagher's Beach, Lighthouse and Fog Whistle	Feb. 19, 1896.	800 00
Dunne, James M.	Fort Williams	Oct. 26, 1859.	260 00
Doane, John H.	Yarmouth Fourchu, Lighthouse & Fog Whistle	July 1, 1874.	800 00
Doane, Joshua.	Yarmouth Harbour	Feb. 23, 1874.	*350 00
Doyle, Edward.	Mabou Range Lights	June 14, 1897.	70 00
D'Entremont, W. H.	Abbott's Harbour	May 22, 1888.	90 00
Dewis, F. H. P.	Cape d'Or	April 13, 1898.	500 00
Daigle, Nicholas	Margaree, Outside Range	June 8, 1901.	50 00
Duann, Wm. A.	Green Island	May 20, 1902.	500 00
Ellis, Wm. E.	Annapolis, Pt. Prim or Digby L. H. & F. W.	Mar 8, 1875.	800 00
Early, John.	Margaretville	Feb. 19, 1887.	230 00
Fowler, James E.	Apple River Lighthouse and Fog Whistle	July 25, 1894.	700 00
Fisher, Joel W.	Baccaro or Barrington	Aug. 8, 1883.	400 00
Fulker, Wm. G.	Devil's Island	July 1, 1886.	420 00
Firth, Charles M.	Coffin Island, Liverpool	June 30, 1880.	400 00
Foster, Israel C.	Port Medway	Oct. 13, 1892.	260 00
Foster, Samuel T.	Port Medway Breakwater	Feb. 17, 1899.	100 00
Foster, Geo. M.	Port George	Nov. 5, 1897.	100 00
Fraser, John A.	Callaghan's Island	Dec. 31, 1892.	200 00
Faulkner, W. Y.	Burnt Coat	June 22, 1898.	250 00
Findlay, John H.	Bull Point	Dec. 7, 1899.	100 00
Franklin, J. L.	Wolfville, N.S.	April 4, 1902.	100 00
Gilkie, Henry A.	Sambro	Jan. 8, 1877.	800 00
Giffin, Ira L.	Holly Point Isaac's Harbour	April 28, 1894.	200 00
Gondock, Edward.	Shelburne Sand Point	Dec. 3, 1880.	280 00
Gardner, Frederick T.	Brooklyn Pier	Feb. 6, 1885.	100 00
Gallant, Patrick.	Little Loraine	Jan. 19, 1900.	80 00
Goodwin, Jas. E.	Wood's Harbour	Aug. 27, 1900.	200 00
Harpell, Jeremiah.	Jeddore Harbour Range Lights	Jan. 21, 1901.	150 00
Helm, William.	Flint Island	July 31, 1883.	450 00
Hopkins, Leslie.	Bon Portage Island	Oct. 20, 1897.	350 00
Huntley, Charles H.	Kingsport Pier	June 30, 1890.	100 00
Hawley, Mathew.	South Bay, Ingonish	May 13, 1897.	140 00
Hardy, John.	Gabarus	Nov. 22, 1890.	200 00
Hennesey, W. P.	Highland Village Pole Light	April 6, 1899.	25 00
Hinds, James.	Victoria Beach	Mar. 7, 1901.	100 00
Jackson, David.	Ingonish Island	April 13, 1898.	360 00
Johnson, Edward.	Chebucto Head Lighthouse and Fog Whistle	May 14, 1872.	800 00
Joyce, Simon.	Seal Island Pole Light	July 4, 1884.	100 00
Jamieson, Chas.	Cape St. Lawrence	Sept. 21, 1893.	400 00
Jamieson, Geo. C.	Cole Harbour Range Lights	Oct. 21, 1898.	120 00
Long, Joseph.	Canso Harbour	Dec. 31, 1896.	250 00

* Allowance $30 per annum for fog bell.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

NOVA SCOTIA.—*Continued.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Leblanc, Severin	Fish Island	July 1, 1889	250 00
Lowden, David	Pictou Harbour Range Lights	" 12, 1897	150 00
LeVashe, Wm	Arichat	Oct. 17, 1898	250 00
Lyons, John W	Barrington Light ship	June 18, 1897	500 00
Landry, Edward	Big Arrow Island	Feb. 23, 1897	200 00
Larkin, Ephraim	Shag Harbour, Stoddart's Island	Mar. 18, 1896	200 00
Livingstone, George S	Advocate Harbour	May 8, 1884	250 00
LeBlanc, Benjamin	Tusket Wedge	Nov. 1, 1892	300 00
Morrell, B. H.	Brier Island	June 6, 1901	400 00
Morrison, M. D.	Black Rock Point	" 8, 1892	250 00
Muise, Marcellin	Cheticamp	Nov. 27, 1896	300 00
Misner, John E	Fort Point	May 16, 1896	150 00
Moser, Samuel	Moser's Island	Nov. 6, 1885	450 00
Mullins, James	Mullins Point	June 8, 1892	250 00
Munro, William	Pictou	Nov. 22, 1890	460 00
Murphy, Michael	Pomquet Island	Dec. 18, 1890	350 00
Mundell, Joseph	Sand Point	Oct. 18, 1869	400 00
Martell, John T	Scatterie Lighthouse and Fog Whistle	July 30, 1897	800 00
Murray, John	Cape George	Nov. 3, 1882	200 00
Munroe, William L	Three Top Island	Oct. 28, 1879	200 00
Mitchell, John W	Jeddore Rock	Sept. 29, 1882	400 00
Mitchell, Wm A	Quaker Island	Feb. 19, 1896	300 00
Matheson, Murdoch	Whycocomah Pole Light	Sept. 11, 1884	60 00
Morrison, Widow	Freestone Pole Light	June 5, 1897	150 00
Mauger, John J.	Cape LaRonde	Nov. 16, 1898	300 00
McKay, H. G.	Bird Island	May 21, 1901	450 00
Myrick, John	Cape Race, Newfoundland, Lighthouse and Fog Whistle	Nov. 1, 1897	1,000 00
McDonald, Robert	Carter's Island or Lockport	Jan. — 1885	275 00
McRae, Roderick	Margaree or Sea Wolf Island	Feb. 3, 1898	400 00
McLellan, Rod'k	Margaree Harbour, Inside Range	June 8, 1901	50 00
McKay, R.	North Canso	Feb. 4, 1882	350 00
McFarlane, Andrew	Pictou Island	June 8, 1892	400 00
McDonald, John A.	Port Hood	May 10, 1880	280 00
McDonald, James	Point Tupper	Mar. 15, 1870	300 00
McAskell, Donald	St. Anne's Harbour	June 26, 1889	140 00
McLean, H.	Gillis Point	Dec. 18, 1897	150 00
McRae, Hector	McKenzie Point, Plaster Harbour	Aug. 20, 1890	160 00
McLeod, Norman	Cape North, Money Point	Oct. 14, 1899	400 00
McKay, Angus	Clarke's Harbour	June 3, 1902	50 00
McNeil, F. X. S	Iona	Nov. 16, 1901	120 00
McRae, Donald	Kidston's Island	May 17, 1892	200 00
McLeod, Angus	St. Esprit	Oct. 27, 1880	400 00
McDonald, Norman	Marjorie's Isle Pole Light	July 4, 1884	100 00
McAskill, Kenneth	Jerome Point	" 30, 1901	250 00
McNeil, John C.	Piper's Cove	Dec. 18, 1897	120 00
McNeil, Laughlin	McNeil's Back Pole Light	Aug. 6, 1884	60 00
McFadyen, Malcolm	Mabou Range Light	April 17, 1891	50 00
McVickar, Archibald	Cow Bay Breakwater	July 3, 1896	70 00
McNeil, John	Campbell's Island, Victoria Co.	May 22, 1900	100 00
McEachern, A. L.	Cape St. George	Sept. 8, 1898	450 00
McLeod, Murdoch	Pugwash	Dec. 10, 1897	250 00
McKenna, John L	McNutt's Island, Shelburne Harbour, L. H. & F. W.	Mar. 31, 1899	800 00
MacIntosh, James	Egg Island	July 28, 1899	500 00
McLellan, Ingersoll L	Economy Pole Light	May 16, 1899	*6 00
McAdam, Hugh R	Arisaig	Nov. 14, 1898	100 00
Nass, Henry	Lunenburg	Mar. 12, 1897	300 00
Nickerson, Byron	Negro Island	July 26, 1897	300 00
Nunn, George	Sydney South Bar	June 20, 1872	300 00
O'Leary, Wm	Beaver Island	Feb. 22, 1900	350 00

* Per month during season of navigation.

STATEMENT giving Names and Stations of Light-keepers, &c.—*Continued.*

NOVA SCOTIA—*Concluded.*

Name.	Station.	Appointed.	Salary.
			$ cts.
O'Hara, Theodore	Port Bickerton	Jan. 26, 1901	150 00
Orchard, L. D.	Gull Rock	" 1, 1877	100 00
Payzant, Jason	Little Hope Island	Oct. 22, 1901	500 00
Pearl, Albert	Green Island	Dec. 29, 1873	500 00
Price, Philip	Louisburg	Nov. 8, 1897	350 00
Peters, John G.	Low Point	Oct. 1, 1865	460 00
Pettis, William	Parrsboro'	Dec. 6, 1888	340 00
Palmer, Howard	Wolfe Point	Oct. 14, 1899	250 00
Palmer, H. W.	Fort Point	May 22, 1878	200 00
Perry, John	Sheet Harbour	Dec. 17, 1878	500 00
Perry, Levi	North East Harbour Range Lights	June 17, 1899	200 00
Peters, John N.	Brier Island	" 6, 1901	400 00
Robinson, Charles	Black Rock	Mar. 16, 1885	330 00
Ruggles, Frank	Boar's Head	May 24, 1901	350 00
Robicheau, B. H.	Cape St. Mary's	July 5, 1886	350 00
Rathburn, S. M.	Horton Bluff	1879	250 00
Reid, George J.	Isle Haute	Oct. 18, 1889	500 00
Ross, Robert	George's Island	Jan. 18, 1876	250 00
Robblee, Jacob V.	Shafner's Point	May 29, 1897	150 00
Riley, Simon W.	Annapolis Royal	Mar. 7, 1892	100 00
Richards, Stephen C.	Charlo Cove, Guysboro'	Nov. 4, 1901	120 00
Ross, Alex. W.	Little Narrows	May 23, 1902	120 00
Rogers, Lloyd	Amet Island		[illegible]
Smith, Eph.	Inner Pole Light Sambro Island	Jan. 3, 1900	20 00
Sullivan, James	Cape Canso, Cranberry Island, L. H. & F. W.	May 23, 1887	800 00
Scott, M. C.	Guysborough	April 19, 1884	220 00
Swinehammer, George	Peggy's Cove Point	Jan. 4, 1883	350 00
Spencer, Robert A.	Spencer's Point	April 1, 1870	125 00
Suthern, Edward W.	Westport	" 12, 1890	300 00
Saulnier, John H.	Church Point	Aug. 8, 1878	200 00
Sampson, C.	Quetique Island	Dec. 1, 1874	350 00
Strum, James A.	Westhaver Island	Sept. 23, 1888	200 00
Sollows, A. J.	Green Cove Pole Light	Dec. 28, 1900	75 00
Sampson, Theodore	South Beaver Harbour Pole Light	Oct. 15, 1892	80 00
Smith, Caleb	Salter's Head Beacon Light	June 21, 1888	60 00
Smith, William B.	Westhead Barrington	April 12, 1890	200 00
Simpson, John.	Pictou Custom House Light	Dec. 10, 1901	100 00
Smeltzer, John D.	Hobson Island	April 10, 1900	300 00
Smith, John Young.	Pages Island, Port La Tour	Jan. 17, 1901	150 00
Vigneau, George	Jerseyman's Island	Mar. 23, 1883	300 00
Vance, George	Masstown	June 29, 1898	25 00
Walsh, Patrick	Lingan, C.B.	Feb. 22, 1902	200 00
Wolfe, Howard M.	Ironbound	June 22, 1895	250 00
Wells, James	Whitehead	Oct. 20, 1897	510 00
Wambold, James	Sheet Harbour Passage	May 11, 1887	50 00
Webb, Patrick	Harbour au Bouche	Feb. 19, 1896	250 00
Webber, James M.	Torbay	May 10, 1898	300 00
Wynacht, W. H.	Cross Island Lighthouse and Fog Whistle	April 13, 1898	800 00
Young, Uriah	Chester, Quaker Island	Feb. 15, 1884	400 00
Yorke, Freeman	Cape Sharpe	June 30, 1902	250 00

PRINCE EDWARD ISLAND.

Anderson, Albert	St. Peter's Harbour	July 25, 1900	130 00
Allen, Joel S.	Indian Point Pier	May 18, 1898	375 00
Clark, Jesse	St. Andrew's Point, Inner Range	August 14, 1901	125 00
Champion, Wm.	Cascumpec Harbour	October, 25, 1897	100 00

SESSIONAL PAPER No. 21

STATEMENT giving Names and Stations of Light-heepers, &c.—*Continued.*

PRINCE EDWARD ISLAND—*Concluded.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Costain, Frederick	Miminegash, Rix Point Range Light	May 19, 1897	40 00
Connors, George	St. Andrew's Point, Outer Range	June 3, 1901	125 00
Fraser, John	Summerside Wharf	April 12, 1877	100 00
Gaudet, Agape	Tignish	August 30, 1897	130 00
Gillis, Donald	Point Prim	Decemb. 10, 1897	300 00
Gallant, Jos. Jos	Cape Egmont	Oct. 21, 1902	200 00
Hardy, Wm	Little Channel	July 26, 1875	100 00
Howatt, Abner J	Crapaud Outer Range Light	July 22, 1893	100 00
Harris, Wm	Cape Bear	Nov. 11, 1896	350 00
Kennedy, Alexander	Hazard's Inner Range Light	June 27, 1900	60 00
Kielly, John Andrew	Cove Head, Inner Light	Nov. 27, 1890	90 00
(Vacant)	Crapaud Inner Range Light		100 00
Lewis, James	Brighton Beech Range Light	March 1, 1899	100 00
Munn, Duncan	Little Sands	May 1, 1877	30 00
Morrison, John D	Cardigan	August 15, 1901	100 00
McDonald, John W	Tracadie	May 24, 1901	100 00
McRae, Daniel	Hazard's Outer Range Light	April 6, 1900	70 00
McDonald, Lauchlin	East Point Lighthouse and Fog Whistle	Feb. 23, 1897	600 00
McDonald, John	Orwell	June 25, 1879	80 00
McLeod, Jas. H	New London	January 29, 1896	100 00
McDonald, Wm	West Point	Dec. 1, 1875	300 00
McKay, John	Wood Island	Sept. 12, 1898	250 00
McDonald, Angus	Souris	Nov. 13, 1880	300 00
McDonald, Jas. D	Savage Harbour	July 11, 1889	100 00
McLeod, Lemuel	Murray Harbour Beach Lights	Dec. 21, 1897	50 00
McPherson, Daniel W	Brush Wharf, Orwell, Range Lights	January 13, 1899	60 00
McNeil, Alex. S	Block House, Charlottetown	March 25, 1901	340 00
Oulton, Robert T	Savage Island	June 14, 1897	80 00
O'Brien, Patrick	Miminegash Range Light	May 14, 1897	60 00
Phee, James	North Cape	Sept. 4, 1897	300 00
Penny, Robert	Murray Harbour, Penny's Light	Nov. 11, 1897	50 00
Pino, Joseph N	North Rustico	February 6, 1897	125 00
Ranaghan, Peter	Sea Cow Head	April 21, 1873	250 00
Robertson, Alfred	Annandale Range Lights	October 5, 1898	100 00
Sinclair, Wm	Fish Island	March 8, 1897	250 00
Stewart, Geo	Summerside Harbour Back Range Light	Sept. 5, 1895	80 00
Steele, Colin	Panmure Island	June 3, 1901	250 00
Tuplin, Jas. C	Sandy Island, Cascumpec	May 5, 1897	300 00
Taylor, Chas	Darnley Basin Range Lights	June 14, 1897	60 00
Taylor, James W	St. Peter's Island	May 1, 1897	200 00
Wiggins, G. W. J	Darnley Point Range Lights	October 16, 1896	100 00
Wright, Chas. L	Wright's Range Light, Crapaud	June 14, 1894	100 00

BRITISH COLUMBIA.

Brown, Wm. Henry	Ballinac Island	Oct. 3, 1901	180 00
Carpenter, C	Dryad Point Light	Nov. 7, 1899	180 00
Crozier, James	Bare Point Chemainus	June 12, 1897	168 00
Clarke, M. G	Entrance Island Lighthouse and Fog Whistle	Nov. 26, 1897	900 00

STATEMENT giving Names and Stations of Light-keepers, &c.—*Concluded.*

BRITISH COLUMBIA—*Concluded.*

Name.	Station.	Appointed.	Salary.
			$ cts.
Codville, James	Pointer Island	July 11, 1900	360 00
Croft, M. A	Discovery Island Lighthouse and Fog Whistle	April 1, 1902	900 00
Daykin, William P	Carmanah Point Lighthouse and Fog Whistle	Nov. 4, 1890	1,200 00
Davidson, John	Cape Mudge	June 27, 1895	360 00
Davies, John	Fiddle Reef, Victoria	Dec. 2, 1898	*25 00
Eastwood, F. M	Race Rocks	Jan. 31, 1891	1,200 00
Erwin, Walter	Point Atkinson Lighthouse and Fog Whistle	Oct. 5, 1880	1,000 00
Forsythe, James	Ivory Island	Sept. 5, 1900	500 00
Georgeson, Henry	Plumper Pass Lighthouse and Fog Whistle	July 21, 1884	900 00
Georgeson, James	Saturna Island, East Point	Oct. 26, 1889	550 00
Grove, John	Prospect Point	June 21, 1898	300 00
Gallop, J. W	Balfour	March —, 1900	*20 00
Gordon, Walter	Yellow Island	Sept. 27, 1901	500 00
Greenway, H	Sands Head	January 30, 1902	900 00
Harrison, S. G	Beren's Island	Nov. 4, 1897	300 00
Harvey, Thos. W	Lawyer's Island	Oct. 22, 1801	600 00
Jeffries, Alfred	Sister's Rock, Vancouver	April 30, 1901	500 00
Jones, William D	Brockton Point, Burrard Inlet	Aug. 20, 1890	300 00
Johnston, Capt. George	Fisgard	July 30, 1901	500 00
McColl, Wm	Garry Point	Aug. 4, 1898	*10 00
Patterson, Thomas	Cape Beal	March 2, 1895	†500 00
Richardson, John	Portlock Point Lighthouse and Fog Alarm	Dec. 2, 1895	460 00
Scarlett, Robert	Egg Island	Aug. 22, 1900	600 00

*Per month. †Allowance, $700.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA.

APPENDIX No. 12.

REPORT OF THE CHAIRMAN OF THE BOARD OF STEAMBOAT INSPECTION.

CHAIRMAN'S OFFICE,
OTTAWA, November, 1902.

To the Honourable
Minister of Marine and Fisheries,
Ottawa.

SIR,—I have the honour to submit the annual report of the steamboat inspection service for the fiscal year ended June 30, 1902.

It contains the general work of the service during the period mentioned, giving the number of steamers inspected, with their gross tonnage, and the amount of tonnage dues and fees collected as known by the inspectors on account of inspection. Also a statement of the board meetings held, with the penalties enforced for violations of the Steamboat Inspection Act; and the casualties occurring as reported from the several divisions, with the reports as to the number of vessels lost or unfit for service in the several districts, and the number of new vessels added thereto.

In addition to the steamboats inspected at the port of Montreal, the hoisting gear and ships' tackle of 417 vessels, used for the purpose of loading and unloading those vessels, was also inspected by the steamboat inspectors of that port.

NUMBER of steam vessels reported as known by the inspectors of steamboats in the Dominion, and their gross tonnage, for the year ended June 30, 1902: also the number of vessels inspected, but not registered in the Dominion, for same date.

DIVISION.	Total number of Dominion registered steamers.	Gross tonnage of Dominion registered steamers.	Number of steamers inspected but not registered in the Dominion.	Gross tonnage of steamers inspected but not registered in the Dominion.
West Ontario	422	89,658·00	36	20,278 00
Kingston	162	20,143 59	31	2,400 32
Montreal	216	24,132·00	2	2,835 00
Quebec	161	39,034·00	Nil	...
Nova Scotia	135	22,195·62	21	25,769 50
New Brunswick and Prince Edward Island	133	14,278·41	15	6,828 01
British Columbia and Yukon Territories	246	53,225·26	25	27,001 27
Manitoba and North-west Territories	138	6,335·84	2	693 37
	1,513	269,002·72	132	85,805 47

NUMBER of Dominion registered steam vessels inspected and their gross tonnage, with the amount of dues and fees collected on account of steamboat inspection, during the year ended June 30, 1902.

DIVISION.	Number of Dominion registered steamers inspected.	Gross tonnage of Dominion registered steamers inspected.	Amount of dues and fees collected on account of steamboat inspection.
			$ cts.
West Ontario	343	83,525 00	8,784 72
Kingston	157	20,429 18	2,449 89
Montreal	200	24,151 23	3,350 20
Quebec	169	38,478 00	4,001 56
Nova Scotia	118	20,674 66	4,532 08
New Brunswick and Prince Edward Island	109	13,467 40	2,339 84
British Columbia and Yukon Territory	218	53,175 72	7,342 60
Manitoba and North-west Territories	105	6,450 55	1,034 44
Inspection of tow barges			120 00
Engineers' Certificates			910 00
	1,419	260,351 74	34,915 33

BOARD MEETINGS.

A meeting of a quorum of the Board of Steamboat Inspection was convened at Toronto, November 14, 1901, for the purpose of considering amendments to the rules for the construction of boilers, and the bringing of them into greater conformity with the British Board of Trade rules, which in due time will be adopted and published. Also, owing to the numerous applications made to have vessels propelled by power derived from naphtha, gasoline, or such material, licensed for the purpose of carrying passengers. This matter was given careful consideration, and in view of the number of accidents from fire and explosion which have occurred in such vessels, and the inflammable nature of the material, together with the unreliability of the motive power as of present construction, it was the unanimous opinion of the board, in the interest of public safety, not advisable to license such vessels for the purpose of carrying passengers.

On March 12, 1902, a meeting was again convened at Toronto, composed of the following members: J. Dodds and E. W. McKean of Toronto, T. P. Thompson, Kingston, W. Laurie, Montreal, J Samson, Quebec, E. Adams, Ottawa.

This meeting was convened for the purpose of again giving consideration to a former request of the Bertram Engine Works Co. as stated in my report for 1901; also to examine the new boiler which burst under test pressure at the Polson Iron Works Co. of Toronto; and to consider the subjects considered and discussed at the former meeting of the Board November 4, 1901, together with the request of the National Association of Marine Engineers as presented to the Hon. Minister of Marine and Fisheries for amendments to the laws pertaining thereto, as to the board's opinion thereon, for the information of the Hon. Minister.

Relating to the bursting of the shell of the Polson Co. boiler while under test pressure, the following was the opinion of the Board from the tensile and bending tests made of the material; that the tensile and bending tests in some cases showed fairly satisfactory, but the comparatively low reduction of area at point of fracture in test strips and the abruptness of the fractures, together with the results of the rolling and pressing tests to which subjected, clearly demonstrated the material as very brittle and lacking the quality of toughness; and should not in the interest of safety be permitted for use in shells of steamboat boilers; and demonstrates the necessity of careful attention and

inspection on the part of inspectors when inspecting boilers under construction, as to the quality of the material being used.

February 19, 1902.—A meeting of the full Board of Hull Inspectors was convened at Ottawa, for the purpose of revising the rules where deemed necessary to meet the requirements, as considered most suitable and adapted to the conditions as existing in the several divisions.

The meeting was convened from 19th to 22nd both days inclusive, during which time the rules relating to the inspection of boats, life preservers and other life-saving appliance to be carried on steamboats or other vessels were carefully considered, clause by clause, and revised where deemed advisable in the interest of the public service, with due regard to safety; which in the opinion of the Board will be more workable and applicable to the several localities, than the present rules and conditions as existing; and in due time will be adopted and published together with the rules for the construction of boilers.

Prosecutions with Penalties Enforced for Violation of the Steamboat Inspection Act.

October 12, 1901.—A complaint was received by the department informing them the steamer *Minneola* was trading on the waters at Rat Portage, Ont., in violation of the Steamboat Inspection Act, and not being registered; on inquiry by the department, instructions were issued to the Collector of Customs at Rat Portage to tie the vessel up, and place her under seizure until the requirements of the law were complied with, and a fine of $50 and costs collected for the violation; in all amounting to $80.15, which was collected and received by the department, April 11, 1902.

April 11, 1902.—At Victoria, B.C., the Collector of Customs imposed a fine of $100 on the steam tug *Tyee*, of New Westminster, for carrying passengers and not having been certificated for that purpose; which charge was admitted and the penalty paid, as per bank draft No. 807, received by the department.

April 8, 1902.—Information was laid against the captain of the steam-tug *Blonde* for infraction of the Steamboat Inspection Act, by carrying passengers without holding a certificate for that purpose. The case was tried before the Stipendiary Magistrate at New Westminster, B.C., who finding the defendant guilty, imposed a penalty of $75, and costs $21.60, which was paid by defendant.

May 15, 1902.—Information was laid against the owners of the steam-tug *Eva* for carrying passengers without being certificated for so doing; which case came before his Honour Judge Henderson, at Vancouver, B.C., and was proven, whereby judgment was given imposing a fine of $100, and costs $20.50, which was paid by defendants.

May 22, 1902.—Steam-tug *Eagle* charged with carrying passengers in violation of the law; the case coming before his Honour Judge Henderson, when the defendants appeared and through their counsel pleaded guilty to the charge, and in view of the circumstances a fine of $100 and costs was imposed.

On the same date, steamer *Cleeve* having been charged with carrying passengers in violation of the law, this case also came before his Honour Judge Henderson, when the offence was admitted on the part of the company, who stated they had applied for a passenger license for the vessel, and accordingly his Honour imposed a fine of $100, which has been paid by defendants.

Casualties.

The following are the casualties reported from the several districts as having occurred during the fiscal year ending June 30, 1902.

West Ontario Division.

September 3, 1901.—Steamer *John J. Long* of Collingwood, while lying at the dock in Meldrum bay, was almost completely destroyed by fire; cause of fire being unknown

September 11, 1901.—Steamer *Gertrude A. Ranney* of St. Catharines, while lying at the dock at Little Current, was forced against it by a tow of logs en route down the North Channel, and the steamer was so badly damaged that she was abandoned.

September 17, 1901.—Steamer *Bannockburn* of Montreal went ashore near Harbour Beach, Michigan, U.S., she was subsequently released without any material damage.

September 17, 1901.—Steamer *Saturn* of Kingston while on a voyage from Cleveland to Owen Sound, loaded with coal, encountered a severe gale on Lake Huron, when near Southampton her engine became disabled, and as the steamer was rapidly filling with water, she was abandoned. The crew reaching Southampton in safety.

September 25, 1901.—Steamer *Snowstorm*, of Port Stanley, was partially destroyed by fire while lying at the wharf in Toronto; she has since been repaired; cause of fire unknown; no lives were lost.

November 10, 1901—Steamer *E. Windsor*, of Wallaceburg, sprang a leak on Lake Huron, and sank in the St. Clair river, opposite Port Huron, Michigan, U.S. No loss of life.

November 11, 1901.—Steamer *R. C. Britton*, of Wallaceburg, in a fog went ashore on the Duck islands, Lake Huron, remaining there all winter, was released in April, 1902, and towed to Collingwood, where she was repaired.

East Ontario Division.

September 10, 1901.—Steamer *North King* of Kingston while on trip from Port Hope to Charlotte, one of the circulating pipes gave out, in the furnace of the port boiler, this boiler was shut off, and proceeded to port with starboard boiler, where repairs were made.

October 2, 1901.—Steamer *Richelieu*, of Ottawa, while on her trip from Picton to Kingston, foundered in the lower gap, Bay of Quinte, she was heavily laden, and being caught in the trough of the sea, the cargo shifted sufficiently to hold her on her port side until she went down. The crew and passengers got off safely in one of the life-boats.

May 10, 1902.—Steam barge *Iona*, of Picton, while loading coal at Oswego, was partially destroyed by fire, supposed to have originated from candles used by the coal trimmers. One of the firemen lost his life. The boat was towed to Trenton, hauled out, and repaired.

Montreal Division.

July 7, 1901.—Grain Elevator No. 1, while lying in the harbour of Montreal, sprung a leak during the night and sank. No person on board.

December 15, 1901.—Tug *Monarque*, laid up for the winter in Sorel, was wrecked during the ice shove, caused by a sudden rise of water in the Richelieu river.

March 2, 1902.—Steamer *Tiber*, of Montreal, an iron screw vessel of 1,736 gross tons, while on a voyage from Louisbourg to Halifax with a cargo of coal, was lost with the full crew of twenty persons, including officers and men. The wreck was found about a month later off White Point, near Cape Canso, under water, with her propeller gone and both anchors out. It is supposed that she was disabled, and during a severe storm that was raging at the time, was driven on the rocks; but the facts will never be known, as all on board perished.

Quebec Division.

No casualties reported as having occurred.

Nova Scotia Division.

July 12, 1901.—The paddle passenger steamer *Marion*, while on a voyage from Sidney to Baddeck broke the starboard shaft between spring bearing and paddle wheel. The steamer was towed into port and a new shaft supplied.

November 3, 1901.—The screw steamer *Bruce*, on a voyage between Sydney N.S., and Port au Basque, Newfoundland, blew out starboard main steam pipe at flange connection to main t, killing one man and badly scalding three others. At a coronor's inquest held at St. John's it was found that the cause of accident was from defective brazing at flange, the spelter not having been sufficiently flowed.

New Brunswick and Prince Edward Island Division.

July 15, 1902.—Steamer *Addine Paddock*, intended for ferry service from Rothesay to Clifton, N.B., not in commission, was burned to water's edge at Clifton, Kings Co. Cause unknown.

Manitoba and North west Territories.

No casualties reported as having occurred.

British Columbia and Yukon Territory.

August 15, 1901.—Steamer *Islander*, of Victoria, 1,495 gross tonnage, on a voyage from Skagway, Alaska, to Victoria, B.C., at 2.15 a.m. struck a submerged iceberg in St. Stephens Channel off Douglas Island, and sank in twenty minutes from time of striking, in forty fathoms of water; whereby the master, with sixteen of the crew, and twenty-three passengers were drowned.

September 10, 1901.—Steamer *Amur*, of Victoria, 907 tons gross, on a voyage from Skagway, Alaska, to Victoria, B.C., stranded on Narrow Island, Chilkat Island, Lynn Canal, Alaska, was floated off and brought to Victoria, where repaired; damage garboard strake torn off about forty feet, with piece of keel and forefoot.

October 12, 1901.—Steamer *Ilating*, of Vancouver, 1,394 tons gross, on a voyage from Skagway to Victoria, owing to fog in Sabine Channel, Straits of Georgia, stranded in Tucker Bay, Servis Island, damaging stem, keel, frames, floors, and about forty plates in fore part of ship; was floated, brought to Victoria and repaired.

January 2, 1902.—Steamer *Bristol*, of Victoria, 1,983 tons gross, on a voyage from Ladysmith, Vancouver Island, to Alaska, with coal, owing to a gale from south east, and dirty weather, at 11 p.m. stranded on a reef off Grey Island, off N. Dundas Island, Chatham Sound; about 7 a.m. following morning vessel slipped off reef and sank in 34 fathoms of water; whereby seven of the crew including master, pilot, chief and 3rd engineer were drowned. Vessel a total loss.

January 12, 1902.—The steam scour *Katie*, of 46 tons gross, on voyage from Victoria to Ladysmith, for coal, during a south-west gale stranded on Trial Island, and was broken up; a total loss.

March 12, 1902.—Steamer *Mermaid*, of Vancouver, owing to a strong wind and tide, was driven on Newcastle Island, off Namaimo, settling on the rocks, by which her hull was pierced through in several places was floated off, brought to Victoria and repaired.

May, 1902.—Steamer *Viking* while hauled out for repairs to bottom, caught fire at night and became a total loss, supposed to have occurred from spontaneous combustion; no person on board.

April 10, 1901.—Stern wheel steamer *Royal City*, of New Westminster, 200 gross tons, while moored to the wharf at Mission City, Fraser River, fire broke out at night, and having hay on board as part of cargo, that caught fire, the crew were unable to save the vessel, which after burning for about three hours, sank in thirty feet of water.

October 12, 1901.—The stern wheel steamer *Goddard* while towing a scow on Lake Le Barge, Yukon Territory, and running before the wind in a gale, the tow line parted, when she broached to at once and capsized, and out of a crew of five men, the captain and two of them were drowned.

I am, sir, your obedient servant,

EDWARD ADAMS,

Chairman Board of Steamboat Inspection.

STEAM Vessels Inspected for the Year ended June 30, 1902.

WEST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessels.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Abino	40	July 15...	8	5 64	Screw, Niagara River.
Maid of the Mist	80	" 16...	62	9 96	" " "
Union	280	" 17...	267	29 36	Paddle, Buffalo and Fort Erie.
Hope	300	" 17...	170	21 60	Screw " "
Alert	Tug	" 18...	47	8 76	" Welland Canal.
Hector	"	" 18..	43	8 44	" "
City of Dresden	100	" 25..	194	23 52	" Lake Erie.
Scotia	Passeng'rs	Not issued	13	6 04	" Amherstburg and vicinity.
W. E. C. U	Yacht	" ..	6	5 48	" " "
Sarnia	Tug	" .	85	11 80	" Lake Huron.
Evelyn	Fish'g tug	Aug. 14..	32	7 56	" "
Thistle	"	" 14..	36	7 88	" "
Huron	Tug	" 14..	55	9 40	" "
Jno. R. Arnoldi	Dredge	Not issued	116	14 28	Goderich Harbour.
Ella	Yacht	Aug. 19..	15	6 20	Screw, Long Point Bay.
W. M. German	Fish'g tug	" 20..	28	7 24	" Lake Erie.
Hazard	"	" 20..	34	7 72	" "
The Belle	"	" 20..	31	7 48	" "
Ivey Alderson	"	" 21..	39	8 12	" "
Eleanor	"	" 22..	26	7 10	" "
City of Ladysmith	"	" 22 .	35	7 80	" "
Wm. Wilson	"	" 22..	12	5 96	" "
Lena	"	" 22..	14	6 12	" "
Maxie	"	" 22..	16	6 28	" "
Winnie	Tug	" 27..	14	6 12	" Lake Huron.
*Sarah E. Day	"	" 27..	5	10 80	" "
Geo. Swann	Fish'g tug	Not issued	18	6 44	" "
Frank G. McAulay	"	Aug. 28..	43	8 44	" "
A. Chambers	"	" 28..	23	6 84	" "
Earl	"	" 28..	18	6 44	" "
John Logie	"	" 29..	37	7 96	" "
Arbustus	Tug	" 29..	49	8 92	" "
Mabel M	"	Issued	7	5 56	" "
W. J. Strong	"	Aug. 30..	41	8 28	" "
Dredge Hackett	Dredge	" 30..	96	12 68	Harbours on Lakes.
Snowstorm	Tug	Sept. 3..	17	6 36	Screw, Toronto Bay.
Swan	Fish'g tug	" 11..	14	6 12	" Lake Erie.
Jubilee	"	" 11..	10	5 80	" "
May B	"	" 11..	10	5 80	" "
Belle	"	" 11..	16	6 28	" "
Enterprise	"	" 12..	18	6 44	" "
Uncle Tom	"	" 12..	8	5 72	" "
Great Western	200	" 18 .	1,080	94 40	Paddle, Windsor and Detroit.
Lansdowne	200	" 19..	1,571	133 68	" " "
Huron	245	" 21..	1,052	92 16	Twin screw " "
Eagle	Fish'g tug	Not issued	12	5 96	Screw, Lake Huron.
T. J. Collop	Freight	Oct. 3...	63	10 04	" Wallaceburg and vicinity.
Comfort	40	" 5...	14	6 12	" Detroit River.
Willie Seagel	Tug	" 7...	22	6 76	" "
Harry Sewell	"	" 7...	25	7 00	" "
W. S. Ireland	Freight	Not issued	105	13 40	" "
Tempest	Tug	" ..	21	6 68	" "
F. B. Brady	"	Aug. 22..	29	7 32	" Lake Erie.
Gordon Brown	Fish'g tug	Sept. 12..	33	7 64	" "
Magnolia	Tug	Nov. 12..	367	34 36	" Georgian Bay.
Reliance	"	Not issued	311	...	" "
Metamora	"	Nov. 13..	239	24 12	" "
Menodora	"	" 13..	73	10 84	" "
D. L. White	"	Not issued	56	9 48	" "

*Dues and fees for 1900 and 1901.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—West Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
D. R. Van Allen	Freight	March 14	318	30 44	Screw, Duluth and Montreal.
Ontario	500	" 25	1,615	137 20	Paddle, Windsor and Detroit.
Michigan	500	" 25	1,730	146 40	" " "
Seguin	20	" 26	818	73 44	Screw, Quebec and Duluth.
Lakeside (Coasting / Lake)	524 / 349	" 29	834	35 84	" Lake Ontario.
Macassa	616	April 7	459	44 72	Twin screw, Hamilton and Toronto.
Modjeska	801	" 7	678	62 24	" "
Lake Michigan	Freight	" 7	573	50 84	Screw, Duluth and Quebec.
Arabian	13	" 7	1,073	93 84	" "
Acacia	200	" 8	107	16 54	Screw, Burlington Bay.
*St. George	Tug	Not issued	21	20 04	" Toronto Bay.
Niagara (River. / Lake.)	350 / 275	April 9	412	40 96	" Lake Ontario and St Lawrence River
Cuba	109	" 9	931	82 48	" Great lakes.
Erin	Freight	" 10	651	57 08	" "
Lincoln	511	" 11	337	34 96	" Thessalon and Soo.
Melbourne	125	" 14	894	79 52	" Montreal and Toledo.
Persia	150	" 14	757	68 56	" " Hamilton.
Armenia	Freight	Not issued	477	42 36	" Great lakes.
United Empire	357	April 15	1,961	164 88	" Windsor and Duluth.
Monarch	330	" 15	2,017	169 36	" "
Tempest	Tug	Not issued	21		" Sarnia and vicinity.
Orion	Freight	April 15	846	72 68	" Great lakes.
Tepiakan	Fish'g Tug	" 17	29	7 32	" Lake Huron.
Reginald	Tug	" 17	186	19 88	" Georgian Bay.
Ocean	125	" 18	684	62 72	" Montreal and Sarnia.
Hamilton	375	" 18	938	83 04	Paddle, Montreal and Hamilton.
Island Queen	140	" 18	23	6 84	Screw, Toronto Bay.
John Hanlan	185	" 18	37	7 96	" "
Shamrock	412	" 18	154	20 32	Paddle, "
Dan'l Lamb	Dredge	" 19	263	25 24	—— "
Tecumseh	Freight	" 24	840	72 20	Screw, Great lakes.
Traveler	Tug	Not issued	438	40 04	" Georgian Bay.
Chicora	872	May 1	931	82 48	Paddle, Lake Ontario.
Chippewa	2,000	" 1	1,514	129 12	" "
Corona	1,456	" 1	1,274	109 92	" "
Ongiara	244	" 1	98	12 84	Screw, Niagara River.
Luella	110	" 5	38	8 04	" Toronto Bay.
Ada Alice	125	" 5	60	9 80	" "
Mayflower	900	" 5	189	23 12	Paddle, "
Myles	Freight	Not issued	1,199	100 92	Screw, Great lakes.
Balize	Tug	" "	250	25 00	" Georgian Bay.
Kingston	1,000	May 13	2,925	242 00	Paddle, Toronto and Prescott.
Toronto	1,000	" 13	2,779	230 32	" "
Cleopatra	Yacht	" 14	104	13 32	Screw, Lake Ontario.
Home Rule	Tug	" 15	81	11 48	" Detroit River.
Juno	Freight	" 15	288	28 04	" Duluth and Montrea
Lurline	Yacht	" 15	66	10 28	" Detroit River.
Saginaw	Tug	" 15	357	33 56	" "
Wales	"	" 15	350	33 00	" "
City of Chatham	580	" 16	341	35 28	" Chatham and Detroit.
Imperial	204	" 16	150	20 00	" Sarnia and Sandusky.
White Star (Coasting / Lake)	702 / 468	" 19	451	44 08	Paddle, Lake Ontario.
Sarnia	Tug	" 20	85	11 80	Screw, Lake Huron.
Hiawatha	Yacht	" 21	46	8 68	" Toronto Bay.
Primrose	900	" 21	189	23 12	Paddle, "
Thistle	345	" 21	78	11 24	" "
Garden City	760	" 29	637	58 96	" Lake Ontario.
Kate	Yacht	" 30	22	6 76	Screw, Kingston and vicinity.

*Dues and fees for 1900, 1901 and 1902.

STEAM Vessels Inspected, &c.—West Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Cruiser	Yatch	May 31	55	9 40	Screw, Lake Ontario.
A. J. Tymon	Coasting 448 / Lake 300	June 7	194	23 52	" "
Urania	500	" 10	898	79 84	Paddle, Lake Erie.
Pittsburg	500	" 10	1,349	115 92	" Sandusky and Soo.
Dredge Frank	Dredge	Not issued	185	19 80	—— Harbours on Georgian Bay.
Arbutus	Tug	June 17	49	8 92	Screw, Lake Huron.
Hiawatha	300	" 18	163	21 04	" St. Clair River.
Morning Star	Tug	" 28	5	5 40	" Toronto Bay.
Clark Bros	200	" 30	92	12 36	" "
Gordon Jerry	Freight	" 30	124	14 92	" Lake Ontario.
Arlington	100	" 30	23	6 84	" Toronto Bay.
Total			4,5756	4,351 76	
		1902.			
Maid of the Mist		July 16	99		Screw, Niagara River.
Louise		Not issued	84		" Lake Erie.
Superior		June 14	251		" Buffalo and Crystal Beach.
City of Holland		Aug. 24	439		" Duluth and Prescott.
Victoria		Sept. 17	192		" Windsor and Detroit.
Transport		" 17	1,595		Paddle " "
Michigan Central		" 17	1,522		" " "
Transfer		" 18	1,511		" " "
Wyandotte		" 20	320		Screw, Lake Erie to Huron.
Fortune		" 24	200		" Windsor and Detroit.
Ariel		" 25	202		" Walkerville "
Welcome		Oct. 4	213		" Port Huron and Windsor.
Niagara		" 24	213		" Buffalo and Fort Erie.
Shenango No. 1		Not issued	1,942		Twin screw, Lake Erie.
Omar D. Conger		"	196		Screw, Detroit River.
		1903.			
Excelsior		May 16	229		" "
Sappho		" 16	224		" "
Promise		" 17	473		" "
Garland		" 17	248		" "
Pleasure		" 17	490		" "
Arundell		" 17	339		" "
Ariel		" 17	202		" "
Tashmor		" 26	1,345		Paddle "
City of Toledo		" 26	1,004		" "
Idlewild		June 9	363		" "
Greyhound		" 9	1,392		" "
Columbia		" 9	969		Screw "
City of the Straits		" 9	1,095		Paddle, Sandusky and Soo.
Sailor Boy		" 10	163		Screw, Detroit River.
Darius Cole		" 13	538		Paddle, Buffalo and Crystal Beach.
Pennsylvania		" 13	747		" Lake Erie.
Crystal		" 14	552		" Buffalo and Crystal Beach.
James Beard		" 18	87		Screw, Port Huron and Sarnia.
Frank E. Kirby		" 19	533		Paddle, Detroit and Sandusky.
Total			19,972		

JOHN DODDS,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1902.		$ cts.	
M. A. Bennett	Tug	July 4	34	7 72	Screw, Toronto Bay.
Morning Star	"	" 5	5	5 40	" "
		1901.			
J. L. Beckwith	"	Oct. 31	61	9 88	" Sault River.
Florence M	"	Not issued			" "
Sea Gull	"	"			" "
		1902.			
Venetta	Yacht	July 16	31	7 48	" Georgian Bay.
City of Windsor	172	" 17	511	48 88	" Collingwood to Sault Ste-Marie.
Viola	Yacht	" 17	68	10 44	" Georgian Bay.
J. H. Jones	250	" 18	152	20 24	Georgian Bay and Lake Huron.
Nipissing	313	" 24	275	30 00	Paddle, Muskoka Lake.
Jennie Wilson	Tug	" 25	7	5 56	Screw " "
Deverish	Yacht	" 25	3	5 24	" " "
Ontario	Tug	" 25	11	5 88	" " "
Ethel May	Yacht	" 25	13	6 04	" " "
*Llano	"	Not issued	11	11 76	" " "
Wawonaissa	Tug	July 26	7	5 56	" " "
Naiad	Yacht	" 26	29	7 32	" " "
Ina	"	Not issued	14	6 12	" " "
Theresa	Tug	July 26	26	7 08	" " "
Kate Murray	"	" 26	3	5 24	" " "
Manolia	Yacht	" 26	6	5 48	" " "
Southwood	Tug	" 27	19	6 52	" " "
Wapenao	Yacht	" 27	5	5 40	" " "
Secret	"	" 27	9	5 72	" " "
Flyer	18	" 27	4	5 32	" " "
Allena May	Tug	" 27	16	6 28	" " "
Onagonah	Yacht	" 30	19	6 52	" " "
Marie	Tug	" 31	12	6 04	" Parry Sound and vicinity.
*Halcro	Yacht	" 31	8	11 28	" " "
Florence Main	100	Aug. 2	79	11 32	" Muskoka Lakes.
City of Bala	Pass	Not issued	74	10 92	" " "
		1901.			
Algoma	455	Oct. 31	157	20 56	" Point Iroquois to Killarney.
Advance	9	Aug. 13	1,031	90 48	" Quebec to Duluth.
Stilletto	30	" 13	14	6 12	" Waubaushene to Moose Point.
C. W. Chamberlain	Freight	" 14	385	35 80	" Quebec to Duluth.
Ottawa	8	" 15	2,131	202 48	" " "
Wanda	Yacht	Not issued	12	5 96	" Muskoka Lakes.
Phoenix	Tug	Aug. 19	29	7 32	" Huntsville and vicinity.
Empress Victoria	100	" 19	106	16 48	" " "
Gem	40	" 20	9	5 72	" " "
Lady of the Lakes	Tug	Not issued	10	5 80	" Lake of Bays.
Mary Louise	40	Aug. 21	64	10 12	" "
Florence	Tug	" 21	27	7 16	" "
Equal Rights	Yacht	" 22	6	5 48	" "
†Herbert M	Tug	Not issued	26	77 88	" Hollow Lake.
Joe	Pass	"	57	9 56	" Huntsville and vicinity.
Oriole	"	"	75	11 00	" Muskoka Lakes.
Lady Franklin	"	"	5	5 40	" Sparrow Lake and vicinity.
Enterprise	305	Aug. 28	148	19 84	Twin scr., Lakes Simcoe and Couchiching.
Annie C. Hill	Yacht	Not issued	14	6 12	Screw, Lake Simcoe.
Minota	"	Aug. 28	29	7 32	" Lakes Simcoe and Couchiching.

* Dues and fees for 1900 and 1901.

† Dues and fees for 1890-1-2-3 4-5-6-7-8-9-1900 and 1901.

STEAM Vessels Inspected, &c.—Western Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1901.		$ cts.	
Agnes	21	Aug- 28	14	6 12	Screw, Belle Ewart to Roaches Point.
Evelyn	Tug	Sept. 11	85	11 80	" Georgian Bay.
S. R. Norcross	"	" 12	20	6 60	" French River.
Coponaning	"	" 13	18	6 44	" "
J. F. O'Brien	25	" 17	59	9 72	" Byng Inlet and vicinity.
Penetang	Tug	Not issued	102	13 16	" Georgian Bay.
Margherita	Yacht	Sept. 19	31	7 48	" "
City of Owen Sound	247	" 20	754	68 32	Paddle, Collingwood to Sault Ste. Marie
G. P. McIntosh	Tug	" 21	58	9 64	Screw, Georgian Bay.
Sandford	"	Oct. 14	56	9 48	" "
Port Elgin Queen	"	" 15	37	7 96	" "
Sea King	Fish'g tug	" 15	26	7 08	" "
Daisy	Tug	Not issued			" "
		1902.			
Clucas	Fish'g Tug	Oct. 18	28	7 24	" " and Lake Huron.
*Juno	"	Not issued	28	21 72	" " "
*Lizzie May	"	Oct. 18	18	19 32	" Lake Huron.
W. H. Sickold	"	Not issued	22	6 76	" "
*Sea Gull	"	"	19	19 56	" "
Sea Queen	"	"	18	6 44	" "
Edna Ivan	9	Oct. 19	54	9 32	" Killarney to Cockburn Island.
Elite	Fish'g Tug	Not issued	22	6 76	" Lake Huron.
Everard	"	"	25	7 00	" "
John McKay	"	"	34	7 72	" "
Vixen	"	"	68	10 44	" "
Siesta	Yacht	Oct. 22	99	12 92	" Sault and vicinity.
J. L. Beckwith	Tug	" 22			" "
Glyn	"	" 23	20	6 60	" "
W. A. Rooth	"	" 23	52	9 16	" "
Bertha Endress	"	Not issued	32	7 56	" "
R. A. McLean	"	Oct. 24	30	7 40	" "
General Weitzel	"	Not issued	32	7 56	" "
Islander	"	"	6	5 48	" "
Pauline Hickler	"	Oct. 25	50	9 00	" "
Dredge Gladiator	Dredge	Not issued			Sault.
Algoma	650	Oct. 26			Screw, Point Iroquois to Thessalon
Iota	Yacht	" 26	6	5 48	" Sault and vicinity,
N. Dyment	Tug	" 29	59	9 72	Twin-screw, Thessalon and vicinity.
Killarney Belle	Fish'g Tug	" 29	28	7 24	Screw, Thessalon and vicinity.
E. P. Sawyer	Tug	" 30	52	9 16	" Sault River.
Jas. McKeon	"	" 30	36	7 88	" Blind River.
Fanny Arnold	31	" 30	73	10 84	" Killarney to Sault Ste-Marie
Albert Wright	12	" 30	29	7 32	" Johns Island and vicinity.
P. S. Heidsordt	Tug	" 31	45	8 60	" Spanish River and vicinity.
Stella	Fish'g Tug	" 31	16	6 28	" North Channel.
Surprise	"	Nov. 1	19	6 52	" Gore Bay and vicinity.
Dispatch	Tug	Not issued	33	7 64	" Georgian Bay and North Channel.
Fred. Davidson	40	Nov. 2	43	8 44	" Killarney to Sault Ste-Marie.
B. M. Fraser	40	" 2	50	9 00	" " "
Scotch Thistle	30	" 2	17	6 36	" Killarney to Algoma Mills.
E. Blake	Tug	Not issued	22	6 76	" North Channel.
J. G. Gidley	"	"	57	9 56	" "
Molly S	30	Nov. 4	45	8 60	" Thessalon to Killarney.
Welcome	Tug	Not issued	21	6 68	" North Channel.
Helen S	18	Nov. 6	86	11 88	" French River to Algoma Mills.
Cynthia	Fish'g Tug	" 25	35	7 80	" Georgian Bay.
Orcadia	"	" 26	26	7 08	" "
Dalton McCarthy	"	Not issued	54	9 32	" "
Jas. Storey	Tug	Nov. 27	49	8 92	" "

* Dues and fees for 1899-1900 and 1901.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—West Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Bannockburn	10	Mar. 26	1,620	137 60	Screw, All lakes and rivers.
†Annie M	Fish'g Tug	" 26	33	15 28	" Georgian Bay.
Hugh S	"	" 26	24	6 92	" "
Rosedale	10	" 27	1,507	128 56	" All lakes and rivers.
Algonquin	16	" 27	1,806	152 48	" Duluth to Prescott.
Minnie M	168	" 31	613	57 04	" Toledo to Sault Ste-Marie.
Ossifrage { River	550	" 31	632	58 56	" " "
Ossifrage { Lake	447				
Imperial	Tug.	" 31	36	7 88	" Sault and vicinity.
James Norris	"	April 1	50	9 00	" "
W. L. Davis	"	Not issued	46	8 68	" "
Telegram	200	April 2	198	23 84	" Sault Ste-Marie to Collingwood.
Superior	32	" 2	89	12 12	" Manitoulin Isd. to Michipicoten.
W. J. Emerson	Fish'g Tug	" 2	28	7 24	" Lake Superior.
Commodore	Tug.	" 3	40	8 20	" Sault and vicinity.
Philadelphia	40	" 3	148	19 84	" Montreal to Duluth.
Florence M	Tug.	" 3	8	5 64	" Sault and vicinity.
C. E. Ainsworth	Fish'g Tug	" 4	76	11 08	" Lake Superior.
C. H. Merritt	300	" 4	122	17 76	" Thessalon to Sault Ste-Marie.
Gordon Gauthier	Fish'g Tug	" 4	26	7 08	" Lake Superior.
H. R. Dixon	379	April 5	483	46 64	" Peninsular Harbour to Collingwood
*Beather Belle	Fish'g tug	" 8	20	13 20	" Georgian Bay.
Agnes	Tug	" 9	23	6 84	" "
Thomas Maitland	"	" 9	107	13 56	" "
Athabaska	500	" 10	2,269	189 52	" Owen Sound to Fort William.
Alberta	500	" 10	2,282	190 56	" " "
Manitoba	500	" 10	2,616	217 28	" " "
Germanic	500	" 11	1,014	89 12	" Collingwood to Duluth.
Majestic	638	" 28	1,578	134 24	" " "
City of Toronto	394	" 11	782	70 56	Paddle, Penetanguishene to Sault Ste. Marie
City of Collingwood	391	" 11	1,387	118 96	Screw, Collingwood and Duluth.
City of Midland	419	" 11	974	85 92	" " Sault Ste-Marie.
Atlantic	300	" 11	683	62 64	" " "
Huronic	563	" 18	3,330	274 40	" Duluth and Lake Ports.
Saucy Jim	Tug	" 12	93	12 44	" Georgian Bay.
Beatrice M	Fish'g tug	" 12	36	7 88	" "
Britannic	277	" 12	428	42 24	Paddle, Collingwood to Sault Ste-Marie.
Severn	Tug.	" 14	44	8 52	Screw, Georgian Bay.
A. V. Crawford	"	" 15	51	9 08	" "
Onaping	"	" 15	256	25 48	" "
Lillie	"	" 15	50	9 00	" "
S. Kneeland	"	" 17	46	8 68	" Meaford Harbour.
R. J. Morrell	Fish'g tug	" 17	40	8 20	" Georgian Bay.
Mizpah	Yacht.	" 17	18	6 44	" "
Laura M	Fish'g tug	Not issued	18	6 44	" "
Creole	Tug	April 22	21	6 68	" "
Signal	"	" 22	94	12 52	" "
Dolphin	"	" 22	24	6 92	" "
Bruce	"	Not issued	16	6 28	" "
Rover	"	April 23	51	9 08	" Midland Harbour.
Dredge 9	Dredge	" 23	187	19 96	Dredge " "
Minitaga	Tug	" 23	75	10 84	Screw, Georgian Bay.
John Lee, Sr { Lake	200	" 24	88	12 04	" Penetanguishene to Collingwood.
John Lee, Sr { Coasting	291				
Masonic	38	" 24	39	8 12	" " Point au Baril.
Alice G.	Fish'g tug	" 29	36	7 88	" Georgian Bay.
Lillie Smith	Freight	May 2	275	27 00	" all lakes and rivers.
Mazeppa	Pass.	Not issued	146	19 68	" Toronto and vicinity.
J. H. McDonald	Fish'g tug	May 13	41	8 28	" Georgian Bay.
Pearl	21	" 15	6	5 48	" Mill Lake.
Ophir	Yacht	" 15	11	5 88	" Parry Sound and vicinity.

* Dues and fees for 1901-1902.

STEAM Vessels Inspected, &c., West Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1903.		$ cts.	
Edna	110	May 15..	55	9 40	Screw, Penetanguishene to Pt. au Baril.
Fred. A. Hogson	Tug.,	" 20..	63	10 04	" Georgian Bay.
A. Seaman	"	" 20..	76	11 08	" "
*Annie Siemon	"	" 21..	19	13 04	" "
Joe Milton	200	" 21..	93	12 44	" " and Lake Huron.
G. P. McIntosh	Tug..	" 22.	58	9 64	" "
Sea King	Fish'g tug	" 22..	26	7 08	" "
W. L. Davis	Tug..	June 9..			" Sault Ste-Marie and vicinity.
John Haggart	200	" 9..	202	24 16	" Thessalon to Sault Ste-Marie.
Espanola	Pass.	Not issued	7	5 56	" Webbwood to Spanish Falls.
John J. Noble	Fish'g tug	June 12..	33	7 64	" Georgian Bay.
		1902			
Kenozha	209	Dec. 31..	225	26 00	" Muskoka Lakes.
		1903			
Muskoka	300	June 18..	197	23 76	" "
Medora	360	" 18..	377	38 16	" "
Gravenhurst	Tug..	" 19..	29	7 32	" "
Nymph	Pass.	Not issued	29	7 32	" "
Priscilla	Yacht.	June 19..	20	6 60	" "
Nipissing	310	" 19..	275	30 00	Paddle, "
Bertha May	Tug.	" 19	20	6 60	Screw, "
Constance	40..	" 20..	52	9 16	" "
Ahmic	40	" 20..	43	8 44	" "
City of Bala	40	" 20..	74	10 92	" "
Oriole	100..	" 20..	75	11 00	" "
Comet	Tug.	" 20..	20	6 60	" "
Mink	40	" 20..	56	9 48	" Muskoka Lakes.
Nymoca	40	" 21..	25	7 00	" "
Wenonah	102	" 23..	163	20 88	" and pad., Burk's Falls to Ahm. H.
Glenrosa	Tug.	" 23..	63	10 04	" Magnetawan River.
Wanita	109	" 23..	44,	8 52	" Burk's Fall to Ahmic Harbour.
Emulator	Tug.	" 23.	25	7 00	" Magnetawan River.
Lorna Doone	Yacht.	" 25..	5	5 40	" Lakes Simcoe and Couchiching.
Longford	150	" 25 .	53	9 24	" " " "
Soucil	Yacht.	" 25..	14	6 12	" " " "
Islay	348..	" 25..	175	22 00	" " " "
Lilly	209	Not issued	22	6 76	" Victoria Harbour.
Una	Yacht.	June 27..	22	6 76	" Georgian Bay.
City Queen	180	" 27..	69	10 52	" Penetang to P. au Baril (Inside).
D. L. White	Tug	" 27..	56	9 48	" Georgian Bay.
Voyageur	"	" 27..	44	8 52	" "
Home Rule	Yacht.	" 28..	3	5 24	" "
Mabel G	"	" 28..	10	5 80	" "
*C. M. Bowman	Tug..	" 30..	88	24 08	" "
Roy	Yacht.	" 30..	6	5 48	" "
*Beaver	Tug.	" 30..	29	14 64	" "
Tadenac	Yacht.	Not issued	9	5 72	" "
Minnicog	40.	June 30..	35	7 80	" enetang to Point au Baril.
Penetang	Tug..	" 30..	102	13 16	" Georgian Bay.
Total			38,987	4,432 96	

* Dues and fees for 1901-02.

E. W. McKEAN,
Steamboat Inspector,
Toronto.

STEAM Vessels Inspected, &c.—West Ontario Division—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where employed.
		1902.		
International	300	June 20...	144	Screw, Sault Ste. Marie.
		1903.		
Mascotte	498	April 1...	162	Twin screw, Sault Ste. Marie.
Total			306	

E. W. McKEAN,
Steamboat Inspector,
Toronto.

STEAM Vessels not Inspected for the Year ended June 30, 1902.

WEST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS. — Why not Inspected and Class of Vessel.	
R. C. Britton	213	149	Screw, freight.	
Mary Arnott	8	6	" tug.	
United Lumberman	399	259	" freight.	
Mary R	44	30	" tug.	
Charles E. Armstrong	49	33	" "	
Golden City	35	26	" "	
Nellie Bly	13	7	" fishing tug.	
Escort	40	27	" tug.	
M. R. Mitchell	40	27	" "	
A. D. Cross	47	32	" "	
Augusta	57	31	" "	
Canada	312	209	" passenger.	
Electric	49	29	" yacht.	
Ranger	8	5	" tug.	
International	851	559	Twin screw, ry. car ferry	
Rosseau	53	36	Screw, tug.	
Islander	165	78	" passenger.	
Conqueror	25	17	" tug.	
Maggie May	46	31	" fishing tug.	
Jas. Playfair	26	18	" "	
Primrose	23	16	" "	
Charlie M	50	30	" passenger.	
Queen of the Isles	40	27	" tug.	Inspected since June 30, 1902.
Waubaushene	97	47	" "	
J. C. Else	33	21	Paddle "	
Gertie C	15	10	Screw "	
Mayflower	27	17	" passenger.	
Bertha	18	12	" "	
Harold Gauthier	9	6	" fishing tug.	
Carlton	8	6	" tug.	
Bobs	38	26	" passenger.	
Lorna Doone	26	18	" "	
Pilot	20	48	" tug.	

STEAM Vessels not Inspected, &c., West Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Geraldine	65	45	Screw, tug.
Dorothe	8	6	" yacht.
W. S. Oldfield	15	10	" tug.
Emma	146	94	" passenger.
Maud	40	27	" "
Shawanaga	96	65	" tug.
Torpedo	8	6	" "
Lillian	5	4	" "
Odessa	12	8	" "
Albani	5	4	" yacht.
Topsy	9	6	" tug.
Sea Gull of Collingwood	9	6	" "
Stiletto	14	10	" passenger.
Enna	6	4	" tug.
Vick	13	9	" "
Annie Moiles	71	49	" "
Ariadne	38	26	" "
M. G. McDonald	29	20	" fishing tug.
Ella Taylor	34	23	" tug.
Sweet Mary	14	9	" "
Ethel	13	9	" "
Island Belle	31	21	" "
W. E. Gladstone	59	40	" "
Viper	34	19	Screw, tug.
Siesta (of Toronto)	3	2	" yacht.
Charlton	389	265	" tug.
Glenora	17	10	" "
John Williams	14	10	" "
Cecele	11	8	" "
Clara Hickler	42	32	" "
Sonntag	7	5	" yacht.
A. M. Petrie	20	13	" "
Agnes C.	20	10	" tug.
Yacht Maida	2	2	" "
Ida	21	6	" yacht.
Ripple (of Chatham)	15	11	" tug.
Ripple (of Collingwood)	5	4	" "
Ida Bell	6	3	" fishing tug.
Nina	11	9	" tug.
Adreliva	15	10	" passenger.
Ocean Lilly	3	2	" tug.
Walter Scott	26	18	" "
Rambler	6	4	" "
Advance	72	49	" "
Shamrock	14	10	" fishing tug.
J. C. Clark	145	99	" passenger.
City of Mount Clemens	102	69	" freight.
Camilla	54	37	" passenger.
Maggie McLean	37	25	" tug.
Harvey Neelon	65	47	" "
Lillie May	10	7	" "
John J. Long	201	137	" passenger.
Cambria	937	590	Paddle, passenger.
Luther Westover	127	80	" tug.
L. Shickluna	16	11	Screw "
Kathleen	110	72	" passenger.
Frankie	24	16	" tug.
Maud S.	14	11	" "
Uncle Jim	11	8	" fishing tug.
	2,783	1,789	

No application.

No application.

Not running.

JOHN DODDS, } *Steamboat Inspectors,*
E. W. McKEAN, } Toronto, Ont.

SESSIONAL PAPER No. 21

Steam Vessels Inspected for the Year ended June 30, 1902.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1902.		$ cts.	
Clark Bros.	200	July 1	92	12 36	Screw, Hamilton and Whitby
Union	280	" 3	267	29 36	Paddle, Black Rock and Ft. Erie.
Arlington	100	" 5	23	6 84	Screw, Toronto Bay.
Scow No. 1	120	" 5		10 00	Scow "
Rosedale	18	" 9	1,507	128 56	Screw, All lakes.
Abino	40	" 11	8	5 64	" Niagara River.
Urania	500	" 17	898	79 84	Paddle, Lake Erie ports.
City of Chatham	580	" 18	341	35 28	Screw, Chatham and Detroit.
Agnes	21	" 19	14	6 12	" Belle Ewart and Rouche Point.
Islay	348	" 25	175	22 00	" Lake Simcoe.
Enterprise	305	" 25	148	19 84	" "
Longford	150	" 26	53	9 24	" "
Stiletto	30	" 26	14	6 12	" Waubaushene and Moose Pt.
Niagara	300	" 24	412	40 96	" Lake Ontario ports.
Advance	9	" 29	1,031	90 48	" All lakes.
Julian V. O'Brien	25	Aug. 3	59	9 72	" Georgian Bay.
Lady Franklin	5	Not issued			
Algoma	455	Aug. 13	157	20 56	" Pt. Iroquois and Killarney.
Ottawa	8	" 15	2,431	202 48	" All lakes.
Great Western	200	" 30	1,080	94 40	Paddle, Windsor and Detroit.
Lansdowne	200	" 30	1,571	133 68	" " "
Huron	245	" 31	1,052	92 16	Screw " "
Scotia	33	Not issued	13	6 04	" Amherstburg and Bois Blanc.
Comfort	40	Sept. 4	14	6 12	" Sarnia.
City of Dresden	100	" 5	194	23 50	" Windsor and Lake Erie ports.
Islander	107	" 17	160	21 20	" Muskoka Lakes.
Nipissing	313	" 16	275	30 00	Paddle "
Oriole	100	" 17	75	11 00	Screw "
Florence Main	100	" 18	79	11 32	" "
City of Bala	40	" 18	74	10 92	" "
Mink	40	" 19	56	9 48	" "
Constance	40	" 19	52	9 16	" "
Flyer	18	" 19	4	5 32	" "
Medora	350	" 20	299	31 92	" "
Kenozha	319	" 20	225	26 00	" "
Ahmic	34	" 20	43	8 44	" "
Charlie M	30	" 20	50	9 00	" "
Muskoka	300	" 21	197	23 76	" "
Nymoca	40	" 21	25	7 00	" "
Empress Victoria	100	" 23	106	16 48	" "
Mary Louise	40	" 23	64	10 12	" "
Gem	40	" 24	9	5 72	" "
Joe		Not issued			
Wenona		"	161	20 88	Paddle and screw, Magnettawan.
Wanita	125	Sept. 25	44	8 52	Screw, Magnetawan River.
Ossifsage	447 L. / 550 R.	Oct. 19	632	58 56	" Toledo and Sault St. Marie.
Telegram	200	" 21	198	23 84	" Soo and Peninsular Harbour.
Superior	32	" 21	89	12 12	" Manitoulin and Michipicoten.
Minnie M	463 L. / 598 C.	" 22	613	57 04	" Soo and Michipicoten.
Algoma	650	" 23	157	20 56	" " Thessalon.
City of Owen Sound	247	" 24	754	68 32	Paddle, Collingwood and Soo.
Philadelphia	40	" 25	148	19 84	Screw, All lakes.
Fanny Arnold	31	" 28	73	10 84	" Killarney and Soo.
Albert Wright	12	" 29	29	7 32	" Thessalon and Little Current.
Molly S	30	" 30	45	8 60	" " Killarney.
B. M. Fraser	40	" 30	50	9 00	" Soo and Killarney.
Fred Davidson	40	" 31	43	8 44	" "
Scotch Thistle	30	" 31	17	6 36	" Algoma Mills and Killarney.
Eagle		Not issued	12	5 96	" Pt. Edward and Pt. Huron.

STEAM Vessels Inspected, &c.—West Ontario Division—*Continued.*

HULL INSPECTION—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1903.		8 cts.	
Helen S.	18	Nov. 1.	86	11 88	Screw, Algoma Mills and French River.
Edna Ivan	9	" 1.	54	9 32	" Killarney and Coburn Island.
Lakeside	349 L. 524 C.	April 1.	348	35 84	" Toronto and Lake Ontario ports.
D. R. Van Allan	Freight	" 7.	318	30 44	" All lakes.
Macassa	616	" 8.	459	44 72	" Toronto and Hamilton.
Arabian	13	April 8.	1,073	93 84	" all lakes.
Germanic	500	" 12.	1,014	89 12	" Collingwood and Duluth.
City of Toronto	394	" 12.	782	70 56	Paddle, Penetang. andSoo.
Atlantic	300	" 12.	683	62 64	Screw, Collingwood and Soo.
Majestic	638	" 14.	1,578	134 24	" " and Duluth.
City of Collingwood	391	" 14.	1,387	118 96	" " "
City of Midland	419	" 15.	974	85 92	" " and Soo.
Britannic	277	" 15.	428	42 24	Paddle, " "
Alberta	500	" 16.	2,282	190 56	Screw, Owen Sound and Ft. William.
Athabasca	500	" 16.	2,269	189 52	" " "
Manitoba	500	" 17.	2,616	217 28	" " "
Ocean	125	" 18.	684	62 72	" Montreal and Sarnia.
Persia	150	" 18.	757	68 56	" " and Hamilton.
Cuba	109	" 21.	931	82 48	" all lakes and rivers.
Tecumseh	Freight	" 24.	840	72 20	" " "
Island Queen	140	" 25.	23	6 84	" Toronto Bay.
		1902.			
Lincoln	511	Oct. 31.	337	34 96	" Thessalon and Soo.
		1903.			
Midland Queen	15	April 30.	1,993	167 44	" all lakes.
Rosedale	10	" 30.	1,507	128 56	" "
Lillie Smith	Freight	May 2.	275	27 00	" "
City of Windsor	172	" 2.	511	18 88	" Collingwood and Soo,
United Lumberman	Freight	" 6.	379	26 92	" all lakes and rivers.
Chicora	872	" 12.	931	82 48	Paddle, Lake Ontario.
Ada Alice	125	" 12.	60	9 80	Screw, Toronto Bay.
United Empire	367	" 13.	1,961	164 88	" Windsor and Duluth.
Hiawatha	300	" 14.	163	21 04	" Sarnia and St. Clair river.
Juno	Freight	" 15.	288	28 04	" all lakes and rivers.
Imperial	204	" 16.	150	20 00	" Sarnia and Sandusky
Michigan	500	" 16.	1,730	146 40	Paddle, Windsor and Detroit.
Ontario	500	" 17.	1,615	137 20	" " "
City of Chatham	580	" 17.	341	35 28	Screw, Chatham and Detroit.
Seguin	20	" 19.	818	73 44	" all lakes and rivers.
Luella	110	" 20.	38	8 04	" Toronto Bay.
Shamrock	412	" 20.	154	20 32	Paddle, "
Mayflower	900	" 20.	189	23 12	" "
Primrose	900	" 20.	189	23 12	" "
Thistle	345	" 20.	78	11 24	" "
John Hanlan	185	" 21.	38	7 96	Screw, "
White Star	468 L. 702 C.	" 21	451	44 08	Paddle, Toronto and Lake Ontario.
Toronto	1,000	" 21.	2,779	230 32	" " " "
Huronic	563	" 22.	3,330	274 40	Screw, Windsor and Duluth.
Hope	300	" 28.	170	21 60	" Buffalo and Fort Erie.
Maid of the Mist	80	" 28.	62	9 96	" Niagara Falls.
Ongiara	244	" 29.	98	12 84	" Niagara River.
Corona	1,456	" 29.	1,274	109 92	Paddle, Toronto and Lake Ontario.
Melbourne	125	" 31.	894	79 58	Screw, Toledo and Montreal.
Hiram R. Dixon	379	June 6.	483	46 64	" Collingwood and Peninsular Pt.
John Haggart	200	" 5.	202	24 16	" Thessalon and Soo.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—West Ontario Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1902.		$ cts.	
C. H. Merritt	300	Oct. 21	122	17 76	Screw, Thessalon and Soo.
Espanola	22	" 21	7	5 56	" Spanish River.
		1903.			
A. J. Tymon	300 L. / 448 C.	June 14	194	23 52	" Lake Ontario ports.
Chippewa	2,000	" 13	1,514	129 12	Paddle, Toronto and Lake Ontario.
Modjeska	801	" 16	678	62 24	Screw, Toronto and Hamilton.
Kingston	1,000	" 17	2,925	242 00	Paddle, Toronto and Lake Ontario.
Garden City	760	" 18	637	58 96	" " "
Algonquin	16	" 19	1,806	152 48	Screw, all lakes and rivers.
Pittsburg	500	" 24	1,349	115 92	Paddle, Buffalo and Soo.

WM. EVANS,
Hull Inspector.

STEAM Vessels inspected in Canada but registered elsewhere for the Year ended June 30, 1902.

WEST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Class of Vessel and where employed.
		1902.		
Frank E. Kirby	975	July 1	532	Paddle, Lake Erie and Detroit River.
Maid of the Mist	125	" 3	99	Screw, Niagara Falls.
		1901.		
Superior	500	Oct. 1	251	" Buffalo and Crystal Beach.
		1902.		
City of Holland	460 1 680c	Aug. 21	439	" all Lakes.
Crystal	845	" 22	551	Paddle, Buffalo and Crystal Beach.
Eagle	512	" 22	183	Screw " " "
Pennsylvania	711.1 1,000c	" 23	747	Paddle, all Lakes.
Excelsior	250	" 26	229	Screw, Detroit and Windsor.
Victoria	250	" 26	192	" " "
Fortune	427	" 26	200	" " "
Pleasure	1,688	" 27	490	" Amherstburg and Pt. Huron.
Sappho	550	" 27	224	" " "
Promise	1,000	" 27	473	" " "
City of Toledo	1,120	" 28	1,004	Paddle, Toledo and Southampton.
Ariel	226	" 28	202	Screw, Walkerville and Detroit.
Idlewild	800	" 28	363	Paddle, Toledo and Pt. Huron.
Transfer	233	" 29	1,311	Paddle and screw, Detroit River.
Transport	256	" 29	1,595	" " "
Michigan Central	281	" 29	1,522	" " "
Greyhound	1,353	" 30	621	" Sarnia and Toledo.
Wyandotte	904	" 31	320	" Lakes Erie and Huron.
Newsboy	381	" 31	200	" Amherstburg and Pt. Huron.
Tashmoo	1,887	Sept. 3	1,344	Paddle " "
Welcome	266	" 3	213	Screw, Pt. Huron and Windsor.
Grace Dormer	160	" 4	66	" " Sarnia.
James Beard	66	" 4	87	" " "
International	300	Oct. 22	144	" Bay Mills and Thessalon.
Mascotte	498	" 23	162	" Pt. Iroquois and Thessalon.
Niagara	345	Nov. 13	214	" Buffalo and Fort Erie.
		1903.		
City of the Straits	650	June 24	1,094	Paddle, Sandusky and Soo.

WILLIAM EVANS,
Hull Inspector.

SESSIONAL PAPER No. 21

Steam Vessels Inspected for the Year ended June 30, 1902.

EAST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1902.		$ cts.	
Alert	150	July 2	56·38	9 48	Screw, Cos. Vict. and Peterboro.
Dickson			16·01	6 28	Paddle " "
Florence					Screw, pleasure yacht.
Wanda	30	June 20	38·61	8 12	" River St. Lawrence.
Jessie Bain		July 5	66·58	10 36	" survey boat, Riv. St. Lawrence.
Rideau King	350	" 6	265·92	8 00	" Kingston and Ottawa.
Cygne	25	" 6	12·02	5 96	" " "
Kinerving		" 1	145·40	16 60	" Rideau Canal and Lake.
City of Peterboro	310	" 16	230·31	26 40	T.S., Rice Lake and tributaries.
Greyhound	40	" 17	37·35	7 96	Screw, Cos. Vict. and Peterboro.
Express	20	" 17	3·90	5 32	" " "
Crandella	300	" 17	266·20	29 28	Paddle " "
Marie Louise		" 17	32·19	7 56	Screw, tug, Lindsay waters.
Beaver		" 18	91·50	12 36	Paddle " "
Waterwitch		" 18	17·70	6 44	Screw "
Manita	150	" 18	34·10	7 72	" Cos. Vict. and Peterboro.
Ogemah	150	" 19	71·75	10 76	Paddle " "
Calumet	30	" 19	21·87	6 76	Screw " "
Pearl	20	" 19	6·39	5 48	" " "
Stranger		" 19	53·41	9 24	" tug " "
Comet	35	" 20	7·60	5 64	" " "
Esturean	300	" 22	139·39	19 12	Paddle " "
Lady of the Lake	38	" 22	32·95	7 64	Screw " "
Maple Leaf	25	" 22	26·08	7 08	" " "
Kawartha	25	" 23	16·69	6 36	" Kawartha Lakes.
Dawn		" 23	20·20	6 60	" tug, Kawartha Lakes.
Dauntless			3·38	5 24	" " "
Estelle		July 24	8·23	5 64	" pleasure yacht.
Majestic	185	" 24	67·77	10 44	" Cos. Vict. and Peterboro.
Sunbeam	210	" 24	104·92	16 40	" " "
Victoria		" 25	3·90	5 32	" tug " "
White Star		" 25	8·83	5 72	" " " "
Empress	224	" 25	84·48	11 72	" " " "
Mollie		" 25	10·72	5 88	" pleasure yacht.
North Star	165	" 26	39·60	8 20	" Rice Lake and tributaries.
Beaver	75	" 26	18·00	6 44	" " "
Viper		May 20	7·50	5 64	" pleasure yacht.
Marie			3·22	5 24	" "
Mildred		May 20	4·50	5 40	" "
Ullacalula					" "
Dorcas			2·51	5 24	" River St. Lawrence.
Naiad		June 20	15·41	6 20	" pleasure yacht.
Vesta		Aug. 15	7·80	5 64	" "
Hydra		" 15	5·70	5 48	" fish tug, Riv. St. Lawrence.
Geraldine		" 20	17·90	6 44	" pleasure yacht.
Wenonah		" 20	5·59	5 48	" "
Kilbernie		" 20	15·23	6 20	" "
Nellie		" 21	6·82	5 56	" "
Tropic	15	" 21	8·86	5 72	" Kingston and Ottawa.
Carmita					" " "
Lillian B	20	Aug. 22	3·76	5 32	" Carleton Place and Innesville.
Commodore			3·06	5 24	" " "
Mary			2·83	5 24	" River St. Lawrence.
Jubilee	40	Aug. 24	53·94	9 32	" Morrisburg and Waddington.
Jopl	40	" 26	10·54	5 88	" Kingston and Prescott.
Sarah A			1·91	5 16	" River St. Lawrence.
Maggie May		Aug. 29	29·03	7 32	" tug, canal and river.
Blue Bell		June 1	11·97	5 96	" pleasure yacht.
Dorothy	20	Aug. 1	10·09	5 80	" Trenton and Prescott.
Mary Ellen		" 15	20·22	6 60	" tug, canal and riv. St. Law.
Annie Barrett		" 15	41·89		" " " "

STEAM Vessels Inspected, &c.—East Ontario Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Beaver		Aug. 15..	40·88	8 28	Screw, tug, canal and riv. St. Law.
Quebec		" 15..	108·31	13 64	" freight, canal and river.
Gracie	40	" 15..	10·50	5 88	Paddle, Cornwall and Dundee.
Princess Louise	40	" 15..	26·36	7 08	Screw, Kingston and Montreal.
Grenada	175	" 15..	57·00	9 56	" " "
Dredge "No 5"		" 15..	100 00	13 00	Spoon dredge, River St. Lawrence.
Mabel McDonald		" 15..	41·81	8 36	Screw, tug, " "
Dredge 'Central City';		" 15..	223·62	22 89	Spoon dredge, " "
D. P. Dey		" 15..	11·26	5 88	Screw, tug, " "
Alaska		" 15..	48·74	8 92	" " " "
Mona		" 15..	24·87	7 00	" " " "
Wm Davis		" 15..	40·23	8 20	" " " "
Dredge St. Lawrence		" 15..	258·10	25 64	Spoon dredge, " "
" Ottawa		" 15..	219·95	22 60	" " " "
Ruth		" 15..	36·45	7 96	Screw, tug, " "
Dredge Ottomac		" 15..	195·65	20 68	Elevator dredge, " "
A. B. Cooke		" 15..	34·17	7 72	Screw, tug, " "
Dredge D. Stewart		" 15..	295·21	28 60	Spoon dredge. " "
Umbria		" 15..	42·98	8 44	Screw, tug, " "
John Hunter		" 15..	32·14	7 56	" " " "
Myra		" 15..	73·21	10 84	" " " "
International	150	June 20..	395·31	39 60	Twin screw, Prescott and Ogdensburg
Frontenac		Oct. 1..	110·76	13 88	Screw, tug, River St.Lawrence.
Alberta		Aug. 1..	122·43	14 76	" freight, River St. Lawrence.
Prince Edward		Oct. 1..	18·22	6 44	Paddle, Tyendinaga and Sophiasburg.
		1903.			
Pierrepont	415	Mar. 24..	251·98	28 16	Paddle, Trenton and Prescott.
Hubert Larkin		" 24..	48·73	8 92	Screw, tug, canal and river.
C. W. Janes		" 25..	47·96	8 84	" " " "
Dredge Sir Hector		" 25..	355·39	33 40	Spoon dredge, River St. Lawrence.
" I.X.L.		" 25.	100·00	13 00	" " " "
Rosemount	10	" 27..	1,580·37	134 40	Screw, freight and pass., Great Lakes.
Nile		" 31..	96·30	12 68	" " River St. Lawrence.
Ranger	15	" 31..	13·83	6 12	" Trenton and Pictou.
Desoronto	85	" 31..	54·57	9 40	" " Prinyers Cove.
Reliance	25	" 32..	239·14	27 12	Twin screw, Chicago and Montreal.
Rescue	25	April 1..	52 29	9 16	Screw, Trenton and Prescott.
Ella Ross	300	" 1..	324·88	34 00	Paddle, Brighton and Prescott.
Resolute	25	" 1.	371·86	37 76	Twin screw, Chicago and Montreal.
Armenia	200	" 1..	109·99	16 80	Screw, Trenton and Dickenson Lnd'g
India		" 2..	976·49	83 08	" freight, Great Lakes.
Cheiftain		" 2..	434·68	39 80	Paddle, tug, River St. Lawrence.
D. D. Calvin		" 2..	749·53	65 00	Screw, freight, Great Lakes.
Aberdeen		" 5..	141·86	16 36	" " lake and river.
Lloyd S. Porter		" 10..	488·63	44 12	" " Great Lakes.
Iona	15	" 11..	231·53	26 56	" all lakes and rivers.
Glengarry		" 14..	732·41	63 56	" " "
David G. Thomson		" 12..	185·05	19 80	" tug, River St. Lawrence.
Alexandria	600	" 18..	863·15	77 04	Paddle, Charlotte and Quebec.
Reindeer	165	" 18..	58·29	9 64	Screw, Trenton and Prescott.
Varuna	240	" 19..	134·04	18 72	" " "
Bothnia		" 21..	833·36	71 64	" freight, Great Lakes.
Chance		" 22..	5·02	5 40	" pleasure yacht.
Glide		" 23.	77·96	11 24	" tug, River St. Lawrence.
Dauntless		" 24..	80·62	11 48	" " " "
Martha	15	" 25..	2·42	5 16	" Kingston and Prescott.
Valeria	40	" 26..	51·55	9 16	" " "
North King	520	" 30..	872·95	77 84	Paddle, all lakes and rivers.
Rideau King	350	May 1..	265·92	29 28	Screw, Kingston and Ottawa.
John Milne		" 2..	108·53	13 72	" freight, lake and river.
Chub		" 3..	57·19	9 56	" " "

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—East Ontario Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection. Fees paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Owen		May 6..	102·84	13 24	Screw, freight, lake and river.
America	600	" 7..	520·53	49 68	Paddle, Trenton and Montreal
Parthia		" 7..	198·13	20 84	" tug, River St. Lawrence
Jessie Bain		" 8..	66·58	10 36	Screw, survey boat, Riv. St. Lawrence
Where Now		" 10..	47·78	8 84	" pleasure yacht.
King Ben		" 12..	145·36	16 60	" freight, River St. Lawrence.
Argyle	800	" 15..	700·29	64 00	Paddle, Lake Ontario & R. St. Lawr.
Clenton			430·00	39 40	Screw, freight, Great Lakes.
Rideau Queen	300	May 20.	350·75	36 08	" Kingston and Ottawa.
Aletha	350	April 1..	171·27	21 68	" Trenton and Valleyfield.
Skylark		May 21..	43·29	8 44	" pleasure yacht.
Madge		" 22..	9·49	5 72	" "
Kismet		" 22..	5·42	5 40	" "
Annie Lake	40	" 22..	18·52	6 52	" Brighton and Prescott.
Carmana		" 23..	56·08	9 48	" pleasure yacht.
Mildred		" 23..	4·50	5 40	" "
Edmond		" 27 .	39·10	8 12	" tug, canal and river.
Wm. Johnston		April 1..	94·72	12 60	" tug, River St. Lawrence.
Rival		" 1..	125·14	15 00	Paddle. tug "
Donnelly			318·91	33 52	" " "
Eva Belle		June 14..	10·10	5 80	Screw, fish patrol boat, Rideau.
Jessie Forward		" 16..	5·64	5 48	" pleasure yacht.
Water Lily		April 1..	95·09	12 60	" freight, River St. Lawrence.
Brockville	358	June 17..	190·75	23 28	" Kingston and Cornwall.
City of Belleville	250	" 17..	101·17	16 08	" Kingston and Prescott.
Antelope	40	" 17..	24·98	7 00	" Trenton and Prescott.
Victoria	186	" 17..	58·10	9 64	" " "
Dortha		" 18..	50·98	9 08	" pleasure yacht.
Albani		" 18..	57·83	9 64	" "
Lee	35	" 18..	8·73	5 72	" Kingston and Prescott.
Illicillewaet		" 19..	15·69	6 28	" pleasure yacht.
Leone	25	" 19 .	4·26	5 32	" Kingston and Prescott
Kenneth		" 19..	4·11	5 32	" preasure yacht.
Ellen	40	" 19..	25·10	7 00	" Kingston and Prescott
International		" 20..	395·31	39 60	Twin screw, Prescott & Ogdensburg.
Naiad		" 30..	15·41	6 20	Screw, pleasure yacht.
Total			20,429·18	2,449 89	

THOS. P. THOMPSON,
Steamboat Inspector.

STEAM Vessels Inspected in Canada but Registered elsewhere, for the Year ended June 30, 1902.

EAST ONTARIO DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and where employed.
		1902.		$ cts.	
I Wonder	33	June 20.	16·11	Exempt	Screw, Kingston and Ogdensburg.
Gryphon			28·00	"	" " "
Niagara	40	June 20.	36·00	"	" Lake Coasting & R. St. Lawrence
Columbia	40	Aug. 29.	26·00	"	" Trenton and Ogdensburg.
Algoma	280	June 20.	92·06	"	" Cape Vincent & Ft. Covington.
Wm. Armstrong	25	" 20.	181·24		" Car Ferry—Brockv. & Ogdens.
Idler	150	Aug. 1.	57·00		" all lakes and rivers.
		1903.			
New Island Wanderer	400	April 3.	123·00	"	" Kingston and Ogdensburg.
Islander	468	" 4.	118·61	"	Paddle, Trenton "
St. Lawrence	645	May 8.	312·90	"	" Kingston "
Gen. W. B. Franklin	25	June 4.	11·35	"	Screw, " "
Virginia	35	" 4.	21·00	"	" " "
I Wonder	32	" 4.	16·11	"	" " "
Sirius	46	" 4.	22·00	"	" " "
Spry	25	" 5.	4·39	"	" " "
Capt. Visgar	110	" 5.	29·23	"	" " "
Castanet	125	" 5.	34·32	"	" " "
H. P. Bigelow	100	" 5.	46·00	"	" " "
Valetta	38	" 6.	27·84	"	" Trenton "
Niagara	40	" 9.	36·00	"	" " "
New York	730	" 13.	294·87	"	Paddle, Kingston "
Ramona	150	" 13.	57·07	"	Screw, Trenton "
Wm. Armstrong		" 18.	181·24	"	" Brockville and Ogdensburg.
Algoma	280	" 20.	92·06	"	" Cape Vincent and Cornwall.
Crisco	65	" 20.	62·00	"	" " "
Dean	27	" 20.	11·19	"	" Kingston and Ft. Covington.
Outing	25	" 20.	15·87	"	" " " "
Henry Plumb	240	" 20.	92·78	"	" Cornwall,
Massena	250	" 20.	89·67	"	" Cape Vincent and Cornwall.
Mary	300	" 20.	174·64	"	" Kingston and Ft. Covington.
Island Belle	330	" 23.	89·77	"	" River St. Lawrence.
Total			2,400·32		

STEAM Vessels not Inspected for the Year ended June 30, 1902.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Dolce	4·74	3·22	Screw, passenger; no application.
Mary Ethel	98·61	56·13	Paddle " "
Startled Fawn	25·49	17·34	Screw " "
Marmora	12·96	8·82	" " "
Mabel C	4·48	3·36	" yacht "
Maud L	14·05	9·56	" tug "
Frank	15·97	3·06	" " "
Total	176·30	101·49	

THOS. P. THOMPSON, *Steamboat Inspector.*

SESSIONAL PAPER No. 21

Steam Vessels Inspected for the Year ended June 30, 1902.

EAST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Clinton		July 1..	430·00	39 40	Screw, lakes and rivers.
Alert	150	" 2..	56·38	9 48	" Co. Victoria.
Wanda	30	" 4..	38·61	8 12	" Trenton and Montreal.
Cygne	25	" 6..	12·06	5 96	" Kingston and Ottawa.
Rideau King	350	" 8..	265·92	*8 00	" " "
North Star	165	" 16..	39·60	8 20	" Rice Lake and tributaries.
City of Peterboro'	310	" 16..	224·29	26 40 T	" " "
Rainbow	130	" 16..	50·69	9 08	" " "
Sunbeam	210	" 17..	104·92	16 40	" Cos. Victoria and Peterboro.
Empress	224	" 18..	84·48	11 72	" " "
Majestic	185	" 18..	67·77	10 44	" " "
Beaver	75	" 18..	18·00	6 44	" Rice Lake and tributaries.
		1901.			
Crandella	300	Dec. 31..	266·20	29 28	Paddle, Cos. Victoria and Peterboro.
		1902.			
Express	20	July 19..	3·90	5 32	Screw " "
Manita	150	" 19..	34·10	7 72	" " "
Greyhound	40	" 19..	37·35	7 96	" " "
Esturian	300	" 19..	139 39	19 12	Paddle " "
Comet	35	" 20..	7·60	5 64	Screw " "
Ogemah	150	" 22..	71·75	10 76	Paddle " "
Calumet	30	" 22..	21·97	6 76	Screw " "
Lady of the Lakes	38	" 22 .	32·95	7 64	" " "
Pearl	20	" 22..	6·39	5 48	" " "
Maple Leaf	25	" 22..	26·08	7 08	" " "
Kawartha	25	" 23..	16·69	6 36	" Fenelon Falls and Kawartha L.
Dauntless	10	" 23..	3·38	5 24	" " "
Parthia	150	Aug. 1..	198·13	23 84	Paddle, Kingston and Prescott.
D. A. Martin	40	" 6..	77·60	11 24	Screw, Turtle Portage and North River.
R. Hurdman	40	" 7..	93·12	12 44	" " Kippewa.
Alice	40	" 7..	25·93	7 08	" " "
Comet	50	" 9..	144·42	16 52	" Lake Temiskaming.
Argo	40	" 9..	154 06	17 32	Paddle "
Clyde	25	" 9 .	29·16	7 33	Screw "
Meteor	350	" 10.	299·43	31 92	" "
Commodore	25	" 12..	3·06	5 24	" Carleton Place and Innisville.
Lillian B.	20	" 12 .	3·76	5 32	" " "
Tropic	15	" 12..	8·86	5 72	" Kingston and Ottawa.
Dorcas	16	Not issued	2·51	5 24	" " Prescott.
Donnelly	200	Aug. 23..	318·91	33 52	Paddle, lake coasting and river.
Mary	10	Not issued	2·83	5 24	Screw, Kingston and Prescott.
Jopl	40	Aug. 26..	10·54	5 88	" " "
Sarah A	10	Not issued	1·91	5 16	" " "
Dorothy	20	Aug. 31..	10·09	5 80	" Trenton "
Grenada (Prescott	175	Sept. 10..	57 00	9 56	" Kingston and Montreal.
Grenada (Montreal	125				
Princess Louise	40	" 10..	26·36	7 08	" " "
Gracie	40	" 10..	10·50	5 88	Paddle, Cornwall and Dundee.
Pontiac	230	" 25..	115·52	14 28	" Chats Lake.
Hudson	40	" 27..	44·81	8 60	" Barry's Bay and Havergal.
Prince Edward	Ferry	Oct. 30..	18·22	6 44	" Tyendinaga and Sophiasville.
		1903.			
Pierrepont	415	April 1..	251·98	26 16	" Trenton and Prescott.
Reliance	25	" 3	239·14	27 12	Screw, Chicago and Montreal.
Ella Ross	300	" 3..	324·88	34 00	Paddle, Brighton and Prescott.
Ranger	15	" 3..	13·83	6 12	Screw, Trenton and Picton.

* Second Inspection.

STEAM Vessels Inspected, &c.—East Ontario Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Resolute	25	April 3..	371·86	37 76	T Screw, Chicago and Montreal.
Deseronto	85	" 3..	54·57	9 40	" Trenton and Pringer's Cove.
D. D. Calvin	Freight..	" 9..	749·53	65 00	" lakes and rivers.
India	" ...	" 10..	976·49	83 08	" "
Rosemount	10	" 15..	1,580·37	134 40	" "
Glengarry	Freight..	" 15..	732·41	63 56	" "
Bothnia	" ...	" 21..	833·36	71 64	" "
Alexandria { Lake / River	450 / 600	" 23..	863·15	77 04	Paddle, Charlotte and Quebec.
Rescue	25	" 12..	52·29	9 16	Screw, Trenton and Prescott.
Bannockburn	10	" 18..	1,619·56	137 60	" lakes and rivers.
Valeria	135	" 28..	51·55	9 16	" Kingston and Prescott.
Rideau King	350	May 1..	265·92	29 28	" " Ottawa.
Iona	15	April 26..	231·53	26 56	" lakes and rivers.
Armenia { Prescott / Montreal	600 / 400	May 7..	520·53	49 68	Paddle, Trenton and Montreal.
North King	525	" 4 .	872·95	77 84	" lakes and rivers.
Lloyd S. Porter	Freight..	" 6..	488·63	44 12	Screw " "
Aletha { Prescott / Valleyfield	350 / 240	" 19..	171·27	21 68	" Trenton and Valleyfield.
Orion	Freight..	April 24..	846·43	72 68	" lakes and rivers.
Reindeer	165	May 20..	58·29	9 64	" Trenton and Prescott.
Argyle { Lake / River	535 / 800	" 20 .	700·29	64 00	Paddle, Lake Ontario and St. L. Riv.
Varuna	240	" 20..	134·04	18 72	Screw, Trenton and Prescott.
Annie Lake	40	" 20..	18·52	6 52	" Brighton "
Crandella	350	" 21..	266·20	29 28	Paddle, Cos. Vic. and Peterboro.
Rideau Queen	300	" 28..	350·75	36 08	Screw, Kingston and Ottawa.
Cora	40	June 2..	22·61	6 84	" Cos. Vic. and Peterboro.
Martha	15	" 5..	2·42	5 16	" Kingston and Prescott.
Queen	40	" 10..	15·37	6 20	" L. Nipissing and tributaries.
Van Woodland	100	" 11..	37·49	7 96	" " "
Sparrow	40	" 11..	38·17	8 04	" " "
Ladas	18	" 11..	54·47	9 32	" " "
Booth	40	" 11 .	346·55	35 76	Paddle " "
Empress	25	" 12..	35·57	7 88	Screw " Sturgeon Riv.
Fleur de Mai	10	" 12..	6·74	5 56	" Sturgeon Falls "
Verva	40	" 13..	54·54	9 40	" Wahnapatia L. and tributaries
Dauntless	10	" 14..	7·93	5 64	" Sturgeon Falls and River.
D. B. Mulligan	40	" 16..	76·69	11 16	" Pembroke and Allumette Isl.
Victoria	400	" 16..	187·58	23 04	Paddle " Des Joachims.
Mahigama	40	" 16 .	19·91	6 60	Screw " Fort William.
Niagara { Lake / River	275 / 350	" 19..	412·23	40 96	" lake and river for excursions.
Armenia { Prescott / D. Landing	200 / 150	" 19..	109·99	18 80	" Trenton and Dickenson's Ldg.
Antelope	40	" 23..	21·98	7 00	" " Prescott.
Brockville { Prescott / Cornwall	358 / 240	" 23..	190·75	23 28	" Kingston and Cornwall.
Victoria	186	" 23..	58·10	9 64	" Trenton and Prescott.
Lee	35	" 24..	8·73	5 72	" Kingston "
City of Belleville	259	" 25..	101·17	16 08	" " "
International { C.&pass. / ferry.	/	" 25..	395 31	39 60	Twin screw, Prescott and Ogdensburg
Jubilee	40	" 26..	53·94	9 32	Screw, Morrisburg and Waddington.
Carpian	500	" 28 .	957·44	84 64	Paddle, Charlotte and Thousand Isl.

M. R. DAVIS,
Hull Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels inspected in Canada but Registered elsewhere for the Year ended June 30, 1902.

EAST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessels and where employed.
		1902.		$ cts.	
I Wonder	33	July 1..	16·11	Exempt.	Screw, Kingston and Ogdensburg.
Nettie	25	" 4..	11·02	"	" " "
Niagara	40	" 9..	36·19	"	" L. C. and St. L. River.
Island Belle	335	" 9 .	89·77	"	" Kingston and Ogdensburg.
Valetta	40	" 10..	27·84	"	" Trenton and Ogdensburg.
Idler { Lake / River.	30 / 150	Aug. 1..	57·29	"	" lake and river.
Columbia	40	" 26..	26·20	"	" Trenton and Ogdensburg.
Algona { Prescott / FtCovington	280 / 190	June 20..	92·06	"	" C Vincent and Ft. Covington.
Ariele	15	Sept. 10..	7·00	"	" " "
Idler { Pres. & Que... / Trenton & Pres	100 / 150	Not issued	57·29	"	" Trenton and Quebec.
		1903.			
Islander	468	April 4..	118·61	"	Paddle, C. Vincent and Ogdensburg.
New Island Wanderer	400	" 9..	123·00	"	Screw, Kingston and Ogdensburg.
St. Lawrence	645	May 7..	312·90	"	Paddle, Kingston and Ogdensburg.
New York	730	June 7 .	294·00	"	" Trenton and Ogdensburg.
Niagara	40	" 9..	36·19	"	Screw, " "
Thyra	40	" 18..	36·00	"	" Trenton and Montreal.
Ramona	150	" 21..	57·00	"	" Trenton and Ogdensburg.
Wm. Armstrong	Ferry ...	" 24..	180·64	"	" { Brockville and Morristown. / Prescott and Ogdensburg.
Outing	25	" 25..	15·87	"	" C. Vincent and Ft. Covington.
Henry Plumb. { Pres.. / Corn..	240 / 175	" 25..	92·78	"	" Kingston and Cornwall.
Cresco	65	" 25..	62·00	"	" Cape Vincent and Cornwall.
Mary { Prescott / Ft.Covingt'n	300 / 200	" 25..	174·00	"	" Kingston and Ft Covington.
Massena { Prescott / Cornwall	250 / 175	" 26..	89·67	"	" Cape Vincent and Cornwall.
Dean	27	" 26..	11·19	"	" Kingston and Ft. Covington.
Algona { Prescott / Cornwall	280 / 190	" 26..	92·06	"	" Cape Vincent and Cornwall.
H. P. Bigelow	100	" 27..	46·67	"	" Kingston and Ogdensburg.
Spry	25	" 27.	4·39	"	" " "
Sophia	40	" 27..	16·36	"	" " "
I. Wonder	32	" 27.	16·11	"	" " "
Virginia	35	" 27..	21·00	"	" " "
Gen. W. B. Franklin..	25	" 27..	11·35	"	" " "
Capt, Visgar	110	" 27..	29·23	"	" " "
Castanet	125	" 28..	34·00	"	" " "
Sirius	46	" 28..	22·78	"	" " "
Capt. Dave Wagoner..	30	" 28..	19·00	"	" " "

M. R. DAVIS,
Hull Inspector.

STATEMENT of Tow Barges inspected, and of Certificates of Inspection issued to Tow Barges for the Year ended June 30, 1902.

EAST ONTARIO DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tonnage.	Inspection Fees.
		1902.		$ cts.
Otonabee	200	July 16..	49·00	10 00
Hastings	150	" 16..	35·58	10 00
Sultana	170	" 18..	40·00	10 00
Comet	66	" 20..		10 00
Lindsay	500	" 22..	75 00	10 00
Lotus	25	" 24..	56·20	10 00
Eclipse	200	" 25..	37·50	10 00
		1903.		
Chaudiere	150	June 12..	71·70	10 00
			364·98	80 00

M. R. DAVIS,
Hull Inspector.

SESSIONAL PAPER No. 21

Steam Vessels Inspected for the Year ended June 30, 1902.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Col By		July 1	9	5 72	Screw, tug, Ottawa River.
Laurier		" 8	19	6 52	" " St. Lawrence River.
Druid	300	" 10	412	40 96	" passenger, Lake Ontario.
Prefontaine	40	" 22	434	42 72	" " Montreal and Quebec.
Massawippi	10	" 24	4	5 32	" " Lake Massawippi.
Lady of the Lake	700	" 24	607	56 56	Paddle " Magog and Newport.
Annie C	10	" 25	6	5 48	Screw " " "
John A		" 25	20	6 6	" tug " "
British Lion		" 26	25	7 00	" " Rideau Canal.
Frolic	10	" 29	16	6 28	" passenger, River Tal.
M. F. McRae		" 30	46	8 68	" tug, St. Lawrence River.
Hama		" 31	42	8 36	" pleasure yacht.
Spray		Aug. 1	107	13 56	" tug, St. Lawrence River.
F. W. Avery		" 6	14	6 12	Warp " Ostoboring Lake.
D. A. Martin	40	" 6	78	11 24	Screw, passenger, North River.
R. H. Hurdman	40	" 6	93	12 44	" " Kippewa Lake.
Alice	40	" 7	26	7 08	" " " "
C. E. Read		" 7	13	6 04	Warp tug " "
Otter		" 7	21	6 68	" " " "
North River		" 7	22	6 76	" " " "
Meteor	350	" 8	299	31 92	Screw, pass., Temiscamingue Lake.
Comet	50	" 8	144	16 52	" " " "
Little Roxy		" 8	12	5 96	" tug " "
Argo	40	" 9	154	17 32	Paddle, passenger " "
Clyde	25	" 9	29	7 32	Screw " " "
Dora		" 10	48	8 84	" tug " "
Beaver		" 10	13	6 04	Warp " " "
Mink		" 10	14	6 12	" " " "
Majestic	400	" 13	275	30 00	Screw, passenger, Richelieu River.
Otto Dredge		" 24	100	13 00	Dredge.
John		" 27	35	7 80	Paddle, ferry, Carillon to Pointe Fortune.
*Montmorency		" 28	18	12 88	Screw, tug, St. Lawrence River.
*Pontiac Dredge		" 28	221	45 36	Spoon dredge.
White Squall		" 29	7	5 56	Screw, pleasure yacht.
Chaffey		" 29	42	8 36	" pass., Lancaster and Valleyfield.
Tiber	50	Sept. 2	1,736	146 88	" " Coasting.
Duchess of York (Dredge)		" 12	100	13 00	Spoon dredge.
Adonis		" 14	14	6 12	Screw, pleasure yacht.
Monarque		" 23	136	15 88	Paddle, tug, St. Lawrence River.
Allie		" 24	11	5 88	Screw, pleasure yacht.
Tit Willow		" 24	17	6 36	" " "
Pontiac	230	" 25	116	14 28	Paddle, passenger, Chats Lake.
Dauntless	10	" 26	8	5 64	Screw, " Lake Nippissing.
Union		" 27	75	11 00	" tug, Upper Ottawa.
Hudson	40	" 27	45	8 60	Paddle, pass., Barry's Bay to Havergal.
Chummy		" 28	5	5 40	Screw, tug, Ottawa River.
Wild Rose		Nov. 4	10	5 80	" pleasure yacht.
		1903.			
Longueuil	300	March 31	365	37 20	Paddle, ferry, Montreal to Longueuil.
Hochelaga	300	" 31	419	41 52	" " " Boucherville.
St. Laurent	257	April 4	546	51 68	" pass., " Berthier.
Sir Hector		" 15	40	8 20	Screw, tug, Ottawa River.
Florence		" 15	62	9 96	" " " "
Dolphin		" 15	70	10 60	" " " "
G. H. Harris		" 15	87	11 96	" " " "
G. H. Notter		" 15	14	6 12	" " " "

*Paid for 1900 and 1901.

STEAM Vessels Inspected, &c.—Montreal Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Hebron		April 16.	149	16 92	Screw, freight, Lakes and Rivers.
Welshman	25	" 16.	156	20 48	" pass., Montreal to Ottawa.
Empress	800	" 16.	677	62 16	Paddle " Ottawa to Grenville.
Victoria	300	" 16.	181	22 48	Screw " " Thurso.
Rockland		" 17.	78	11 24	" tug " River.
Ada		" 17.	28	7 24	" " " "
Russell		" 17.	77	11 16	" tug, Ottawa river.
Mansfield	15	" 17.	169	21 52	" ferry, " to Gatineau Point.
Salaberry		" 19.	222	25 76	" pass., Valleyfield to Lancaster.
Victoria	400	" 21.	188	23 04	Paddle, pass. Pembroke to Des Joachims.
D. B. Mulligan	40	" 21.	77	11 16	Screw, ferry " to Desjardins.
E. H. Bronson		" 21.	285	27 80	Paddle, tug, Upper Ottawa.
Pembroke		" 21.	194	20 52	" " " "
Alex. Fraser		" 22.	320	30 60	" " " "
Hercules		" 22.	21	6 68	Warp, " " "
C. B. Powell		" 22.	272	26 76	Paddle, " " "
Hamilton		" 23.	320	30 60	" " Chats lake.
J. L. Murphy		" 23.	173	18 84	Screw, " " "
Sampson		" 23.	15	6 20	Warp, " " "
Amable du Fond		" 24.	17	6 36	" " " "
Madawaska		" 24.	15	6 20	" " " "
Charlemagne		" 25.	76	11 08	Screw, " St. Lawrence river.
H. F. Bronson		" 25.	137	15 96	" " " "
Jessie Hall		" 25.	57	9 56	" " " "
Harry Bate	40	" 28.	254	28 32	" pass., Montreal to Ottawa.
Olive	60	" 28.	151	20 08	" " " Portland.
T. Osborne		" 28.	25	7 00	" tug, Ottawa river.
Bonito	30	" 28.	17	6 36	" ferry, L'Orignal to Calumet.
Hall	50	" 29.	247	27 76	" pass., Montreal to Ottawa.
Chateauguay	440	May 1.	222	25 76	Paddle, " " Chateauguay.
Princess	443	" 1.	526	50 08	" " " Carillon.
*Lyon C		" 1.	19	13 04	Screw, tug, St. Lawrence river.
*Willie C.		" 2.	8	11 28	" " " "
Laurier		" 2.	19	6 52	" " " "
Dredge No. 4		" 3.	100	13 00	Spoon dredge.
Little Giant (Dredge)		" 3.	100	13 00	" "
Pontiac		" 5.	221	22 68	" "
Montmorency		" 5.	18	6 44	Screw, tug, St. Lawrence river.
Nama		" 5.	42	8 36	" Pleasure yacht.
Duchess of York	700	" 6.	490	47 20	Paddle, pass., Montreal to Carillon.
Leo	10	" 7.	2	5 16	Screw, ferry, Grenville to Hawkesbury.
Glide	40	" 7.	80	11 40	" " Calumet "
King Edward	600	" 12.	571	53 68	Paddle, pass., Toledo to Sault Ste Marie.
Archie Stewart		" 13.	80	11 40	Screw, tug, Montreal to Ottawa.
Filgate	200	" 13.	425	42 00	Paddle, pass., " Cornwall.
Sovereign	700	" 13.	637	58 96	" " " Carillon.
Richelieu	410	" 15.	113	17 04	" " " Valleyfield.
Queen		" 16.	332	34 56	Screw, " " "
G. B. Greene	600	" 19.	255	28 40	Paddle, " Deschenes lake.
G. B. Pattee		" 19.	30	7 40	Screw, tug, " "
Albert		" 19.	269	26 52	Paddle, " " "
Juno		" 20.	17	6 36	Screw, Pleasure yacht.
Chummy		" 20.	5	5 40	" tug, Ottawa river.
Emile		" 20.	12	5 96	" " " "
Alva		" 20.	27	7 16	" " " "
Mildred	25	" 21.	15	6 20	" pass., Buckingham to High Rock.
Leon	15	" 21.	15	6 20	" " High Rock to N.D. du L'eaus.
Agnes	40	" 22.	29	7 32	" " Buckingham to High Rock.
*Alexandria		" 23.	53	18 48	" Pleasure yacht.
Honoré		" 27.	22	6 76	" tug, St. Lawrence river.
St. Louis		" 29.	29	7 32	" Pleasure yacht.

* Paid for 1901 and 1902.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—Montreal Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees paid.	Class of Vessel and where employed.
		1902.		$ cts.	
*Florida		May 29..	201	42 16	Screw, frt., Montreal to Pierreville.
Nora		June 9..	28	7 24	" tug, St. Lawrence river.
Queen	40	" 10..	15	6 20	" pass., Lake Nipissing.
Carmita		" 10..	9	5 72	" Pleasure yacht.
Sparrow	40	" 10..	38	8 04	" pass., Lake Nipissing.
Van Woodland	100	" 10..	37	7 96	" " " "
Booth	40	" 10..	347	35 76	Paddle, " " "
Ladas	18	" 11..	54	9 32	Screw, " " "
Zephyr		" 11..	3	5 24	" tug, " "
Nosbonsing		" 11..	25	7 00	" " " Nosbonsing.
Monarch		" 12 .	37	7 96	Warp, " " Nipissing.
Madoc		" 12..	8	5 64	" " " "
Turtle		" 12..	38	8 04	" " " "
Empress	25	" 12..	36	7 88	Screw, pass., " "
Shoofly		" 12..	10	5 80	" tug, " "
Verva	40	" 13..	55	9 40	" pass., " Wahnapitae.
Sea Flower		" 14..	7	5 56	" tug, " Nipissing.
Dauntless	10	" 14..	8	5 64	" pass., " "
*Osprey	1	" 14..	6	10 96	" Fishing boat "
Fleur de Mai	10	" 14..	7	5 56	" pass., "
Tit Willow		" 16..	17	6 36	" Pleasure yacht, Pembroke.
Mahigma	40	" 16..	20	6 60	" pass., Pembroke to Fort William.
Coulonge		" 16..	18	6 44	Warp, tug, Braeside.
W. F. McRae		" 17..	46	8 68	Screw, " St. Lawrence river.
May		" 17..	21	6 68	" Pleasure yacht.
Ida		" 18..	247	27 76	" frt., Montreal to Ottawa.
Lady of the Lake	700	" 19..	607	56 56	Paddle, pass., Lake Magog.
John A		" 19..	20	6 60	Screw, tug, " "
Massawippi	10	" 20..	4	5 32	" pass.. " Massawippi.
Annie C	10	" 20..	6	5 48	" " " Magog.
Col. By		" 26..	9	5 72	" tug, Rideau canal.
E. G. Laverdure		" 26..	54	9 32	" " " "
Robert Anglin		" 26..	97	12 76	" " " "
Maude	350	" 27.	269	29 52	Paddle, pass., Montreal to Ottawa
Monitor		" 27..	62	9 96	Screw, tug, St. Lawrence river.
Total			19,148	2,456 92	

*Paid for 1901 and 1902.

WM. LAURIE.
Steamboat Inspector.

STEAM Vessels Inspected, &c.—Montreal Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Frank Jackman		July 6..	38·90	8 12	Screw, tug, St. Lawrence river.
West Arm		June 18..	26·66	7 16	" Nipissing lake.
Derrick No. 2		Aug. 1..	100·00	13 00	Floating derrick, Montreal harbour.
Dredge No. 6		" 3..	100·00	13 00	Dipper dredge, rivers.
Mary A. Laughlin		" 4..	22·62	6 84	Screw, tug, St. Lawrence river.
Dredge No. 4		" 10..	100·00	13 00	Dipper dredge, rivers.
Amy		" 11 .	39·50	8 20	Screw, tug, St. Lawrence river.
Maggie R. King		Not issued	27·13	7 16	" Lachine canal.
Tim Doyle		Sept. 23..	14·84	6 20	" "
		1903.			
Derrick No. 5		Mar. 26..	100 00	13 00	Floating derrick, Montreal harbour.
" 4		" 26..	100·00	13 00	" "
" 1		" 26..	100·00	13 00	" "
" 6		" 27.	100·00	13 00	" "
Aberdeen		Not issued	86·58	11 96	Screw, passenger, Montreal harbour.
Derrick No. 3		Mar. 27..	100·00	13 00	Floating derrick "
Dredge No. 1		" 31..	100·00	13 00	Dipper dredge "
" 4		" 31..	461·11	41 88	" "
St. Peter		" 31..	43·00	8 44	Screw, tug "
Robert Mackay		Not issued	128·58	15 32	" passenger "
Dredge No. 2		April 3..	100·00	13 00	Dipper dredge "
Courier		Not issued	12·48	5 96	Screw, passenger "
Dredge No. 3		April 5..	100·00	13 00	Dipper dredge "
St. Louis		" 5..	34·00	7 72	Screw, tug "
Drill Boat		" 8..	100·00	13 00	Drill boat "
H. Larosée		" 24..	12·69	6 04	Screw, tug, Lachine canal.
Hector		May 1..	20·64	6 68	" St. Lawrence river.
Frank Jackman		" 1..	38·90	8 12	" "
St. George		" 5..	67·85	10 44	" Richelieu river.
Antelope		" 14..	82·84	11 64	" Ottawa river.
Gertie		Not issued	20·95	6 68	" Lachine canal.
Plover		May 20..	40·30	8 20	" "
Ida		" 20..	26·41	7 08	" Soulanges canal.
Dandy		" 26..	46·00	8 68	" Ottawa river.
C. W. Dennis		" 28..	16·91	6 36	" Lachine canal.
Grain Elevator St. Lawrence No. 1		June 6..	83·00	11·64	Screw, grain elevator, Montreal harb.
Grain Elevator No. 12		" 6..	183·00	19 64	" "
" 14		" 7..	181·00	19 48	" "
" 11		" 7..	169·00	18 52	" "
" 9		" 7..	172·00	18 76	" "
Nellie Reid		" 9..	55·71	9 48	Screw, tug, St. Lawrence river.
Grain Elevator No. 1		" 12..	165·00	18 20	" grain elevator, Montreal harb.
" 6		" 12..	170·00	18 60	" "
" 15		" 12..	212·60	22 04	" "
" 2		" 13..	170·00	18 60	" "
" 7		" 13..	170·00	18 60	" "
" 13		" 13..	178·00	19 24	" "
Robert Stoker		" 16..	13·72	6 12	" tug, Lachine canal.
Grain Elevator No. 4		" 16..	188·00	20 04	" grain elevator, Montreal harb.
" 16		" 17..	210·31	21 80	" "
" 10		" 17..	173·00	18 84	" "
Total			5,003·23	650 48	

LOUIS ARPIN,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but Registered elsewhere, for the Year ended June 30, 1902.

MONTREAL DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
SS. Ella		July 30	1,457	124 56	Screw, freight, Montreal and Sydney.
		1903.			
SS. Activ		June 10	1,378	118 24	" "
Total			2,835	242 80	

WM. LAURIE.

STEAM Vessels not Inspected for the Year ended June 30, 1902.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	REMARKS. — Why not Inspected and Class of Vessel.
Agnes McMahon	81	47	Screw, tug.
H. M. Mixer	30	9	" "
Conqueror	233	24	Paddle, tug.
Marquis of Lorne	20	11	Screw, passenger.
Maid of the Mill	8	6	" tug.
Beatrice B.	59	43	" passenger.
Janet Craig	12	6	" ferry.
Vesta	14	8	" yacht.
Owl	4	3	" "
Elsie Ross	10	8	" "
Monaco	10	6	" " Not in commission.
Thistle	2	2	" "
Ishaway	7	5	" "
Ballantyne	14	6	Paddle, warp tug.
Quinze	32	26	Screw, tug.
John Thompson	5	4	" "
H. Trudel	13	6	Paddle, warp tug.
West Arm	27	24	Screw, tug.
River Belle	14	11	" "
Grain Elevator No. 8	80	47	" grain elevator.
" No. 5	80	47	" " "
Alcyone	38	22	" yacht.
Chipmonk	20	13	" "
Clipper	4	3	" "
Frank Perew	43	24	" tug.
Tak it Easy	5	5	" yacht. No application.
Aid	25	15	Paddle, tug.
Nokomis	25	17	Screw, yacht.
W. P. Buckley	27	10	" tug.
Dredge T. F. M. No. 1	100	.. ....	Spoon, dredge.
Total	1,042	458	

WM. LAURIE.
LOUIS ARPIN.

STEAM Vessels inspected for the Year ended June 30, 1902.

QUEBEC DIVISION.

BOILERS AND MACHINERY.

Name o Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1902.		$ ct.	
Arizona		July 3..	9	5 72	Screw st am yacht, Lake St. John.
Grace		" 4..	4	5 32	" " " " Edward
Swallow		" 4..	9	5 72	" tug, Lake Edward
Kiskisink		" 5..	3	5 24	" pleasure yacht, Lake Kiskisink
Mistasini	40	" 1..	249	27 92	Paddle, pass., Lake St. John.
Marie Alma		" 1..	52	9 16	Twin screw tug, Lake St. John
Arthur		" 1..	15	6 20	Screw tug, Lake St. John.
*Marie Louise, (Gov.)					" " " "
Paribonka		July 1..	179	22 32	Paddle tug " "
Undine		" 1..	17	6 36	Screw " " "
Kinogami		" 15..	21	6 68	" " " Lake Chicoutimi
Marie Louise		" 20 ..	99	12 92	Pad. ferry Chicoutimi & Ste. Anne
Forest		" 21..	26	7 08	Screw tug " "
J. H. Hackett	25	" 2..	117	17 36	" " Montreal and Bic
M. E. Hackett		" 2..	78	11 24	" " " " Quebec
Johnie H		Aug. 2..	14	6 12	" " Riviere du Loup
Two Brothers		July 7..	23	6 84	" Quebec harbour tug
Queen	450	Aug. 1..	367	37 36	" Winter ferry, Quebec and Levis
Arthur		" 1..	78	11 24	Paddle tug Sorel and Three Rivers
J. Paul		" 1..	20	6 60	Screw tug, Sorel and Three Rivers
Fearless		" 2..	10	5 80	" " Pabos river
Admiral	250	" 2..	682	62 56	Pad., pass., Dalhousie and Gaspé
Christiana		" 20..	57	9 56	" tug, Restigouche river
Bella	40	" 20..	43	8 44	" ferry, Cross Pt. & Campbellton
Oak Bay		" 20..	27	7 16	" tug, Restigouche river
Le Brochu		" 20..	19	6 52	Screw tug, Lake Matepedia
Le Colon		" 28..	173	18 84	Paddle tug, Lake St. John
Polaris	450	Sept. 1..	553	50 61	Screw, winter ferry, Quebec and Lévis
Jack		" 1..	31	7 48	" tug, St. Thomas Basin
Macaunamac		" 1..	4	5 32	" pleasure yacht, Spider lake
Jubilee	30	" 1..	25	7 00	" pass. Lake Megantic
Campania		" 1..	23	6 84	" tug, Lake Megantic
Fees		" 2..	10	5 80	" " " "
Honkidore		" 1..	10	5 80	" " Lake St. Francis
Dot		" 1..	10	5 80	" " " "
L'Ami		" 1..	16	6 28	" " Lake Aylmer
Alpha		" 1..	16	6 28	" " Quebec Harbour
Pilot	459	" 1..	426	42 08	" winter ferry, Quebec and Lévis
Amanda		" 1..	11	5 88	" Quebec harbour tug
St. Charles		" 1..	23	6 84	" " " "
Samson	30	Oct. 1..	94	12 52	" pass., Grandes Piles & LaTuque
Marguerite		Sept. 1..	34	7 72	" tug, Lake Maquina
Fabiola		" 1..	81	11 48	Wrecking sch'r., Gulf and Montreal
Maud		" 1..	50	9 00	Paddle tug, attending dredge
St. Pierre (dredge)		" 1..		5 00	Dredging Nicolet river
		1903.			
Heward McMaugh		June 1..	42	8 36	Screw tug, Quebec harbour
		1902.			
Dama		Sept. 1..	55	9 40	Screw tug, Escoumains river
Leilley H		" 1..	19	6 52	" " Rivière du Loup
		1903.			
Savoy	25	May 1..	348	35 84	" pass. freight, Anticosti & Quebec
Polino	30	" 1..	807	72 56	" " " Mont. & St.John, N.B

*Owned by Public Works.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—Quebec Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certicate Expires	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Rhoda	150	May 1..	182	22 56	Paddle pass,, Rimouski tender
*Heward, McMaugh		" 1..	42	8 36	Screw tug, Quebec harbour
Greetland	40	" 1..	1091	95 28	" pass.& frgt.,Mont.& St.John,N B
Contest	25	" 1..	279	30 32	Paddle, attending buoys service
Red Island Light Ship					Govt. light ship
Lower transv'se L.Ship					" " "
Berthier	600	May 1..	934	82 72	Pad., pass., Montreal & Three Rivers
Chambly	600	" 1.	535	50 80	" " " Chambly
Sorel	40	" 1..	158	20 64	" " " St.Thos.de Pierre Villa
Fire Fly	40	" 1..	214	25 12	" " Montreal and Berthier
Terrebonne	450	" 1..	636	58 88	" " " and Contrecoeur
Laprairie	350	" 1..	600	56 00	" " " and LaPrairie
Lac St. Pierre					Steamer attending dredge and surveys
St. Francis					" " "
Emelia					" " "
John Pratt					" " "
Frontenac					" " "
Prefontaine	40	June 1..	654	60 32	Screw, freight, Quebec and Montreal.
Lotbiniere,now de Levis					Govt. steamer attending dredge.
Champlain					" "
Saguenay	443	May 15..	992	87 36	Pad., pass., Quebec and Chicoutimi.
Canada	600	" 1..	1,768	149 44	" " Montreal.
St. Jean Iberville					Govt. steamer attending dredge
Cartier					" "
Beaupre ex-Montréal	800	May 1..	2,065	173 44	Pad., pass., Quebec and Montreal.
Carolina	650	" 1..	977	86 16	Pad., pass., Montreal and Chicoutimi.
Orleans		" 2..	269	29 52	Screw, ferry, Quebec & Orleans Island.
Champion	530	" 2..	482	46 56	Pad., pass., Quebec and Berthier.
Belle	25	" 15..	57	9 08	Screw, tug & 25 pass., Quebec & Bic.
Victoria		" 15..	48	8 84	" tug.
Hope		" 15..	19	6 52	" "
Frontenac	400	" 1..	304	32 32	" pass , Quebec and St.Romuald.
Campana	400	" 5.	1,697	143 76	" Montreal and Pictou, N.S.
Challenger					Govt. Gross Isle service.
Ste. Croix	500	May 3..	506	48 48	Pad., pass., Montreal and Ste. Croix.
Quebec	550	" 5..	2,656	220 48	" " Quebec.
South	800	" 1..	349	35 92	" ferry, Quebec and Levis.
North	450	" 1..	289	31 12	" "
Etoile	450	" 1..	560	52 80	" Montreal.
Rodolphe	591	" 1..	116	14 28	Tug, paddle, Sorel and Three Rivers.
Dredge Laval					Govt. dredge.
Hudson		May 1.	158	17 64	Pad., tug, Quebec and Montreal.
W. C. Francis		" 1..	37	7 96	Screw, Montreal Harbour tug.
Hosanna		" 1..	89	12 12	Screw, ferry, str., Montreal&L'Orignal
Florence		" 1..	113	14 04	" tug on lake
Sincenne		" 1..	228	23 24	Pad., tug. Montreal and Quebec
Julia		" 1..	91	12 28	Twin screw, tug, Chambly River.
McNaughton		" 1..	137	15 96	Screw, tug, Montreal and lakes.
Ethel		" 1..	72	10 76	" "
Fred, ex-Asilda		" 1..	23	6 84	" "
St. Antoine		" 1..	14	6 12	" pleasure yacht, Chambly river.
Minnie F. Parsons		April 2..	45	8 60	" tug, St. Clair River.
Spartan	400	May 1..	946	83 68	Pad., pass., Montreal and Toronto.
Bohemian	400	June 1..	1,107	96 56	" "
Algerian	400	" 1..	914	81 12	" "
Ste. Anne		May 1..	14	6 12	Screw tug, Sorel and Louisville.
Virginia		" 1..	145	16 60	" Montreal and lakes.
Trois Rivieres	1,200	" 1..	1,552	132 16	Pad. excursion, Montreal & Ste. Anne
May, ex-W. F. Loggie		" 1..	21	6 68	Screw, Montreal Harbour tug.
Trenton, No. 1 Dredge		" 1..	100	13 00	Dredging in Sorel Harbour.
Aurelia		" 1..	32	7 56	Screw tug attending dredge.
Conqueurer		" 1..	233	23 64	Pad. tug, Montreal and gulf.
R. P. Flower		" 1..	15	6 00	Screw tug, Sorel Harbour

* Paid fees in 1901 and 1902.

STEAM Vessels Inspected, &c.—Montreal Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1903.		$ cts.	
Marie Josephine		May 1..	117	17 36	Screw wrecking st schooner, Montreal and Gulf.
Albatros		" 5..	20	6 60	" pleasure yacht, Montreal & Gulf
Majestic		" 13..	275	30 00	" pass., St. John's river.
Cultivateur		" 9..	362	36 96	Pad., ferry, Montreal & St. Helen Isl'd.
Nil		" 9..	28	7 24	Screw, pleasure, yacht, Sorel.
Richard		" 9..	466	45 28	" freight, Montreal & lower ports
Mary		" 10..	108	16 64	" pass., Quebec & lower ports.
Gaspesian		" 14..	490	47 20	" " Montreal "
Douro		" 26..	432	42 56	
Florence, St. Schooner.		" 16..	133	15 64	Screw pass., freights, Montreal & lower ports.
Eureka, owned by Public Works Dept.		" 20..			Surveying channel.
Lord Strathcona		June 1..	495	47 60	Twin screw tug and 25 pass., Montreal and foreign ports.
King Edward		" 1..	355	36 40	Screw pass., Montreal and lower ports.
Foam		" 10..	16	6 28	" Quebec harbour tug.
Two Brothers		" 15..	23	6 84	" " "
Ivan R.		" 15..	18	6 44	" pass., Grandes Piles and La Tuque.
Florence		" 15..	18	6 44	" tug " "
Hirock		" 15..	8	5 64	" " " "
St. Maurice	25	" 15..	45	8 60	" pass. " "
St. Louis		" 15..	17	6 36	" tug " "
*Annet					" " " "
Marie Louise		June 25..	6	5 48	" ferry, Mar'a Ville and Shawinigan.
Como		" 25..	75	11 00	Pad., ferry, Nicolet and Three Rivers.
Bourgeois		" 25..	94	12 52	" " "
Glacial		" 25..	109	16 72	Screw, ferry, St. Angel and Three Riv.
Blandford		" 25..	65	10 20	Pad., tug, St. Maurice river.
Beatrice		" 25..	40	8 20	" " "
M. E. Hackett		" 25..	78	11 24	Screw, tug, Montreal and Quebec.
Caspian		" 25..	968	85 44	Pad., pass., Montreal and Toronto.
Columbia	500	" 15..	884	78 72	T.S., " " "
Corsican		" 15..	946	83 68	Pad., " " "
Charlevoix		May 1..	312	24 96	Screw, freight, Quebec and Montreal.
J. H. Hackett		June 20..	117	17 36	" tug and pas., Montreal and Gulf.
Honfleur		" 15..	19	6 52	" " Lake St. John.
Arthur		" 15..	15	6 20	" " "
Undine		" 15..	17	6 36	" " "
Mistasini		" 15..	249	27 92	Pad., pass., Roberval and Grande Decharge.
Le Colon		" 15..	173	21 84	Pad., pass., Roberval and Mistasini.
Paribonka		" 15..	179	22 32	" tug, Lake St. John.
Marie Alma		" 15..	52	9 16	T.S., " "
Kiskisin		" 15..	3	5 24	Screw, pleasure yacht, Lk. Keskisink.
Grace		" 20..	4	5 32	" " Lake Edward.
Swallow		" 20..	9	5 72	" tug, Lake Edward.
St. Louis	555	" 28..	343	35 44	Pad., pass., Montreal and Quebec.
Diver		" 20..	86	11 88	Screw, steam, wrecking schooner.
St. George		" 23..	12	5 96	" Quebec harbour tug.
St. Rock		" 23..	18	6 44	" "
St. Charles		" 23 .	23	6 84	" "
Dolly					
Victoria	30	June 30..	343	35 44	Screw, steam barge, Montreal and Chambly.
Arthur		" 30..	78	11 24	Pad., tug, Sorel and Louisville.
E. B. Eddy		" 30..	78	11 24	Screw, tug, Quebec and Lakes.
Arizona		" 30..	9	5 72	" steam, pleasure yacht, Lake St. Joseph.

* Government tug on St. Maurice river.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—Quebec Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Ontario		June 30.	18	6 44	Screw, tug, Lake St. Joseph.
Frenton (No. 1 dredge)			100	13 00	
Aurelia			32	7 56	
Total			38,478	4,001 56	

STEAM Vessels not Inspected for the Year ended June 30, 1902.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Adriatic	156	87	Laid up for want of trade, screw, pass.
Atlantic	564	283	" " "
City of London	517	294	" " "
Activity	22	15	Tug, attending dredge, inspected since.
Thor	323	203	Paddle, tug, inspected since.
Alma	12	8	Screw tug, not running.
Victor	35	18	" "
Mersey	56	34	" "
Alaska	51	45	Screw, lighter, engine taken out of her.
Total	1,736	987	

JOS. SAMSON,
Steamboat Inspector.

STEAM Vessels inspected for the Year ended June 30, 1902.

QUEBEC AND MONTREAL DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Maud	350	July 20..	269	29 52	Pass. & frt., Montreal & Ottawa.
Harry Bate	40	" 20..	254	28 32	" " " "
Chaffey	40	" 20..	42	8 36	Screw, ferry, Valleyfield & Lancaster.
Paul Smith	300	" 25..	417	41 36	Pad., pass., Montreal & Ottawa.
Ida	40	" 25..	247	27 76	Pass. & frt., " "
Lady of the Lake	700	" 25..	607	56 56	Pad., pass., Newport & Georgeville.
Amy C	10	25..	6	5 48	Screw, yct., pass., " "
Missawippi	10	" 25..	4	5 32	" pass., on Lake Missawappi.
Douro	75	Aug. 1..	432	42 56	" " & frt., Quebec & Natasqua.
Belle	40	" 20..	51	9 08	" tender, Quebec Harbour.
Spray	15	" 22..	24	6 92	" " " "
Marie Louise	30	" 27..	99	12 92	Pad., pass., Chicoutimi & Ste. Anne.
Mistassini	40	" 28..	249	27 92	" " Roberval & Peribonca.
Peribonca	.....	.....	179	22 32	Not allowed to carry passengers.
Le Colon	.....	.....	173	18 84	" " " "
Undine	.....	.....	17	6 36	" " " "
Arthur	15	Aug. 29..	15	6 20	Screw, pass., waters of Lake St. John.
Admiral	250	" 31..	682	62 56	Pad., pass. & frt., Dalhousie & Gaspé.
Bella	40	" 31..	43	8 44	" ferry, Campbellton & Cross Pt.
John	30	July 25..	35	7 80	" " Carillon & Pt. Fortune.
Tiber	50	Sept. 13 .	1,736	146 88	Screw, pass. & frt., Mont. & for. pts.
Majestic	400	" 14..	275	30 00	Pad., pass., Indian Tn., St. John, N.B
Jubilee	30	" 18..	25	7 00	Screw, pass., waters of Lake Mégantic
Polaris	450	Oct. 2..	533	50 64	" winter ferry, Quebec & Lévis.
Pilot	450	" 3..	426	42 08	" " " "
Queen	450	" 4..	367	37 36	" " " "
		1903.			
Savoy	25	April 15..	348	35 84	" pass. & frt., Quebec & Anticosti.
Rhoda	150	" 15..	182	22 56	Pad., " mail tender, Rimouski.
Campana	400	" 20..	1,697	143 76	Screw, pass. & frt., Montreal & Pictou.
Polino	30	" 18..	807	72 56	" " " Montreal & Sydney
Greetland	40	May 4..	1,091	95 28	" " " " St. J.N.F.L.
Contest	75	April 7..	274	29 92	Pad., pass., attending buoys.
Orleans	530	" 4..	269	29 52	Screw, " Quebec & Isl. of Orleans.
Frontenac	555	" 4..	304	32 32	Pad., " " Berthier.
Champion	612	" 3..	482	46 56	" " " "
Berthier	600	" 9..	934	82 72	" " Montreal & Three Rivers.
Quebec	800	" 23..	2,656	220 48	" " Quebec & Montreal.
Canada	600	June 4..	1,768	149 44	" " Montreal & Chicoutimi.
Terrebonne	450	April 22..	636	58 88	" " " Contrecœur.
Chambly	600	" 23..	535	50 80	" " " Chambly.
Sorel	40	" 23..	158	20 64	" ferry, Sorel & St. Thomas.
Fire Fly	40	" 22..	214	25 12	" " " Berthier.
North	450	May 3..	289	31 12	" " Quebec & Levis.
South	450	" 3..	349	35 92	" " " "
Carolina	600	April 23..	977	86 16	" pass., Montreal & Chicoutimi.
Ste. Croix	550	May 31..	506	48 48	" " " St. Anne.
Etoile	591	" 4..	560	52 80	" " " Montreal.
Spartan	400	June 27..	946	83 68	" " " Toronto.
Algerian	400	May 2..	914	81 12	" " " "
Saguenay	443	April 24..	992	87 36	" " " Saguenay.
Hochelaga	300	May 1..	419	41 52	" " " Hochelaga.
Longueuil	300	" 1..	365	37 20	" " " Longueuil.
Laprairie	350	April 22..	600	56 00	" " " Laprairie.
St. Laurent	257	" 26..	546	51 68	" " Montreal & Berthier.
Olive	60	June 12..	151	20 08	Screw, pass. & frt., Mont. & Ottawa.
Harry Bate	40	July 20..	254	28 32	" " " " "
Welshman	25	June 11..	156	20 48	" " " " "
Majestic	400	Sept. 14..	275	30 00	" " Indian Tn, St. John, N.B.

SESSIONAL PAPER No. 21

Steam Vessels Inspected, &c.—Quebec and Montreal Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where Employed.
		1903.		$ cts.	
King Edward	600	May 9..	571	53 68	Screw, pas., Toledo & Sault Ste. Marie
Montreal	800	June 4..	2,068	173 44	Pad., " Mont. & St. A. de Beaupre
Trois Riviers	1,161	May 10..	1,552	132 16	Pad., pass., Montreal and St. Anne.
Richard	*	" 10..	466	45 28	Screw, ft., Montreal and lower ports.
Hosanna	185	" 10..	89	12 12	" ferry, Montreal and Longueul.
Columbian	500	" 10..	884	78 72	" pass., Montreal and Toronto.
Terrebonne	450	" 10..	636	58 88	Pad., pass., Montreal and Contreceur.
Préfontaine	40	" 17..	654	60 32	Screw, pass., and ft., Montreal & Que.
G. B. Greene	600	" 22 .	255	28 40	Pad., pass., waters of Deschéne lake.
Victoria	300	" 22..	181	22 48	Screw, pass., Ottawa and Thurso.
Mansfield	15	" 22..	169	21 52	" fry, N. Edinburg & Gatineau Pt.
Agnes	40	" 23 .	29	7 32	" pass., Buckingham & High Rock.
Mildred	25	" 23..	15	6 20	" " "
Léon	15	" 23..	15	6 20	" High Rock and St. Ann.
John	40	" 27..	34	7 72	Pad., ferry, Carillon and Pt. Fortune.
Glide	40	" 26..	80	11 40	Screw, ferry, Calumet & Hawkesbury.
Bonito	30	" 26..	17	6 36	" Calumet & L'Orignal.
Leo	25	" 26..	2	5 16	" Hawkesbr'y & Grenville.
Sovereign	700	" 27..	637	58 96	Pad., pass., Montreal and Carillon.
Hall	50	" 29..	247	27 76	Screw, pass. & ft., Montreal & Ottawa.
Chateauguay	440	" 29..	222	25 76	Pad., pass., Montreal & Chateauguay.
Hamilton	375	" 30..	938	83 04	" Montreal and Toronto.
Cultivateur	751	" 30..	362	36 96	Pad., ferry Mont'l and Isd St. Helen.
Harbour C. S. Courier	†	.....	12	5 96	
" St. Peter	†	.....	43	8 44	
" St. Louis	†	.....	34	7 72	
" Aberdeen	200	‡	87	11 96	
" Robt. McKay	200	‡	129	15 32	
Bohemian	375	May 31..	1,107	96 56	Pad., pass., Montreal and Prescott.
Empress	800	" 22..	677	62 16	" Ottawa and Grenville.
Corsican	400	June 12..	946	83 68	" Montreal and Prescott.
R. C. Flower	20	" 13..	15	6 20	Screw, pass., Sorel and Berthier.
Gaspésian	40	" 19..	490	47 20	" & ft., Mont'l & B. des Chal'r.
St. Louis	514	" 20..	428	42 24	Pad., pass., Quebec and Montreal.
Douro	60	" 27..	432	42 56	Screw, pass. & ft. Que. and Netasquan.
Victoria	6	" 28..	343	35 44	" Montreal and Valleyfield.
Queen	225	" 28..	332	34 56	Screw, freight, Montreal and Carillon.
Valleyfield	450	" 30..	417	41 36	" Montreal and Toronto.
Richelieu	100	" 30..	113	17 04	Pad., pass., Montreal and Valleyfield.
Filgate	273	" 30..	424	41 92	" Montreal and Cornwall.
Bella Ritchie	125	" 30..	69	10 52	" Montreal & Beauharnois.
Mary	18	" 20..	108	16 64	Screw, pass. & ft., Quebec and Gaspé.
Princess	443	" 30..	527	50 16	Pad., pass., Montreal and Carillon,
Duchess of York	700	" 30..	490	47 20	" Montreal.
Bonenfant	25	July 1..	31	7 48	Pad., ferry, Bout l'Isle & Charlemag'e.
St. Maurice	40	" 2..	45	8 60	Screw, pass., Grand Péle & La Tuque.
Ivan R	40	" 2..	18	6 44	" " "
Samson	.....	" 2..	93	12 44	" " "
Bourgeois	40	" 3..	94	12 52	Pad., ferry, T. Rivers & St. Gregoire.
Como	40	" 3..	75	11 00	" Three Rivers and Nicolet.
Glacial	40	" 3..	109	16 72	Screw, ferry, T. Rivers & St. Angele.

* Freight. † Not fit to carry passengers. ‡ Not equipped.

PIERRE D. BRUNELLE,
Hull Inspector.

STEAM Vessels Inspected for the Year ended December 30, 1902.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Lion		July 1..	19·82	6 60	Screw, tug, coasting.
Dolphin		" 1..	12·78	6 04	" " "
Star	15	" 2..	6·07	5 48	" passenger, river.
L. Boyer	100	" 10..	60·00	9 80	" " Halifax Harbour.
Weymouth	100	" 23..	153·93	20 24	" " coasting.
Rescue		" 24..	124·09	14 92	" tug, coasting.
Fairy		" 24..	16·06	6 28	" water boat, Sydney Harbour.
Elinor M. Cates		" 26..	58·81	9 72	" tug, coasting.
Zulieka	18	" 26..	12·38	5 96	" passenger, Mira River.
Marietta	20	" 26..	7·04	5 56	" " "
Cesta		" 26..	9·21	5 72	" tug, Mira River.
Iona	22	" 27..	54 27	9 32	" pass., coasting.
Eldon	40	" 29..	37·91	8 04	" " Strait of Canso.
Malcom Cann	125	" 30..	211·81	24 96	" " coasting.
Carrie	40	Aug. 8..	14·83	6 20	" " Chester and Mahone.
Maggie	38	" 8..	19·26	6 52	" " Lunenburg and South.
Trusty	150	" 8..	57·60	9 64	" " La Have River.
St. Michael	15	" 9..	39·20	8 12	" " coasting.
Gambrinus		" 12..	28·36	7 24	" tug, Halifax Harbour.
Bessie and Harry		" 16..	22·00	6 76	" water boat, Halifax Harbour.
A. C. Whitney	75	" 19..	62·67	10 04	" passenger "
Commodore	30	" 19..	12·84	6 04	" " "
Anticosti		" 19..	19·00	6 52	" tug, coasting.
Flash	15	" 20..	7·79	5 64	" pass., Halifax Harbour.
Collector	40	" 21..	52·02	9 16	" " "
Henry Hoover		" 30..	54·64	9 40	" tug "
Salvor		Sept. 7..	44·93	8 60	" lighter "
Harbinger		" 13..	108·56	13 72	" fishing boat, coasting.
Mascotte	17	" 17..	35·40	7 80	" passenger, Halifax Harbour.
Aid		" 18..	98 55	12 84	" tug, coasting.
Lunenburg	200	Oct. 1..	265·55	29 28	" pass. "
Ralph E. S.		" 8..	27·82	7 24	" fishing boat, coasting.
Annie		" 21..	42·12	8 56	" water boat, Halifax Harbour.
Bridgewater	225	" 28..	207·79	24 64	" pass., coasting.
Wilfred C	60	" 24..	99·26	12 92	" " "
LaHave		Nov. 1..	49·27	8 92	" tug "
Goliah	17	" 1..	146·83	19 76	" pass. "
Pekin	17	" 9..	84·91	11 80	" " "
Westport	125	" 14..	80·09	11 40	" " Yarmouth and St. John.
Edna R		" 14..	49·66	8 92	" fishing boat, coasting
Yankee		" 14..	7·31	5 56	" " "
Ida Sue		" 14..	44·51	8 60	" tug "
Wanda		" 15:	38·48	8 04	" " "
Nereid		" 15..	12·24	5 96	" " "
Halifax	250	" 10..	338·42	35 04	Paddle, ferry, Halifax Harbour.
Alpha		Dec. 5 .	61·20	9 88	Screw, fishing boat, coasting.
Messenger	100	" 13.	111·53	13 96	" " and pass., coasting.
Oneita		Aug. 8..	14·96	6 20	" " boat "
Newfoundland		Feb. 14..	918·75	78 52	" freight "
Harlaw	60	" 25..	451·36	44 08	" passenger "
J. L. Nelson	20	Mar. 11..	37·84	8 04	" " "
City of Ghent	60	" 21..	198·64	23 92	" " "
Chester		" 24..	79·50	11 40	" tug "
Florence C		" 26..	38·98	8 12	" fishing boat "
Lenore		" 26..	15·23	6 20	" " "
T. B. Hamblin	100	April 4..	31·71	7 56	" fishing and pass. "
Mable K		" 3..	15·20	6 20	" " boat "
Anita		" 5.	26·50	7 16	" " " "
Yarmouth	450	" 8..	1,451·92	124 16	" passenger, foreign.
Percy Cann	35	" 10..	80·06	11 40	" " coasting.
Gertrude M.	35	" 10..	47·58	8 84	" " "
LaTour	60	" 10 .	154·43	20 32	" " "

SESSIONAL PAPER No. 21

STEAM VESSELS Inspected, &c.—Nova Scotia Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Cacouna		April 30..	1,450·78	121 08	Screw, freght, coasting.
Coban	37	" 12..	1,063·30	93 04	" passenger "
Louisburg		" 16..	1,815 60	150 28	" freight, foreign.
Bonavesta	50	" 17..	1,306 33	112 48	" passenger, foreign.
Halifax	500	" 29..	1,874 88	158 00	" " "
Acadia	37	" 21..	74 21	10 92	" " coasting.
Flash	15	" 22..	7 79	5 64	" " Halifax harbour.
Helen May Butler		" 23..	66 98	10 36	" fishing boat, coasting.
Cape Breton		" 29..	1,764 19	146 12	" freight, foreign.
Mikado		" 28..	43 94	8 52	" lighter, Halifax harbour.
Douglas H. Thomas	18	" 1..	211 91	24 96	" passenger, coasting.
Trusty	75	May 1..	57 60	9 64	" " La Have river.
A. C. Whitney	75	" 13.	62 67	10 04	" tug & pass., Halifax harbour.
Evangeline	100	" 14.			Register in London, G.B., undergoing change of ownership.
Avon	100	" 14..	64 66	10 12	Screw, passenger, Avon river.
Falmouth		" 14..	43 03	8 44	" tug, "
Arcadia	37	" 16..	61 64	9 96	" passenger, coasting.
Marion	10	" 16..	10 30	5 80	" " Pictou harbour.
W. M. Weatherspoon		" 16..	59 29	9 72	" tug, coasting.
Gipsy		" 16..	16 70	6 36	" " "
May Queen	25	" 16..	35 92	7 88	" passenger, Pictou harbour.
John L. Cann	125	" 17..	165 55	21 28	" " coasting.
Vega	90	" 17..	132 22	18 56	" Mulgrave and Sydney
Meadow Flower		" 19.	6 56	5 56	" water boat, Canso harbour.
Active		" 19..	59 91	9 80	" tug and fishing, coasting.
Vulcan		" 19..	18 40	6 44	" " "
*Fred L. M. Paint	37	" 20..	88 18	15 04	" passenger, Strait of Canso.
Blue Hill	140	" 20..	195 83	23 68	" " Bras d'Or Lakes.
Gladiator		" 21..	70 40	10 60	" tug, coasting.
Pawnee	450	" 21..	106 80	16 56	" passenger, coasting.
Fairy		" 21..	16 06	6 28	" water boat, Sydney harbour.
Nelson	100	" 21..	64 34	10 12	" passenger, "
Merrimac	20	" 22..	85 80	11 80	" " Strait of Canso.
Diamond		" 22..	22 65	6 84	" tug, Sydney harbour.
Daisy		" 22..	10 74	5 88	" water boat, "
Hygeia	190	" 22..	57 69	9 64	" passenger, "
C. M. Winch		" 22..	87 72	12 04	" tug, coasting.
Peerless	300	" 22..	94 27	12 52	" passenger, Sydney harbour.
Zaidee		" 23..	18 63	6 44	" water boat, "
Sea Bird		" 23..	41 28	8 28	" fishing boat, coasting.
Weymouth	100	" 23..	153 93	20 24	" passenger, "
Dartmouth	435	April 29..	311 23	32 88	Paddle, passenger, Halifax harbour
Petrel	18	June 2..	6 36	5 48	Screw " "
Markland	75	" 5..	21 92	6 76	" " Yarmouth harbour
Tourist	38	" 5..	4 42	5 32	" " " "
Juno	40	" 5..	9 29	5 72	" " " "
Island Gem		" 5..	15 62	6 28	" fishing boat, coasting.
Boston	550	" 23..	1,694 50	143 52	" passenger, foreign.
Marina	75	" 6..	32 46	7 56	" " Annapolis Basin.
Freddie V		" 6..	26 69	7 08	" tug " "
Centreville		" 6..	59 71	9 80	" tug, coasting.
Glencoe	40	" 7..	32 21	7 56	" passenger, Annapolis river.
Ulala		" 16..	13 70	6 12	" yacht, Halifax harbour.
Pastime	150	" 17..	67 71	10 44	" passenger " "
Alexandra		" 28..	33 67	7 72	" yacht, " "
Shannon		" 26..	75 11	11 00	" tug, coasting.
Totals			20,674 66	2,305 48	

* An over charge of $3.00 was made by Collector of Customs.

J. P. ESDAILE, *Steamboat Inspector, Halifax, N.S.*

STEAM Vessels Inspected in Canada but registered elsewhere, for the Year ended June 30, 1902.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1902.		$ cts.	
Ocamo	75	July 15..	1,826·54	154 16	Screw, passenger, foreign.
F. W. Roebling	30	" 18..	161·97	20 96	" " coasting.
Bruce	300	" 23..	1,154·59	100 40	" " foreign.
Pro Patria	60	Aug 1..	759·01	68 72	" " "
Chebucto	400	" 14..	578·48	54 24	" ferry, Halifax harbour.
Oruro	150	" 21..	1,919·07	161 52	" passenger, foreign.
Beta	75	Sept. 11..	1,086·67	94 96	" " "
Prince Edward	600	" 13..	1,413·74	121 12	Twin screw, " "
Erna	100	July 31..	1,530·11	130 40	Screw, " "
					" " "
		1903.			
Glencoe	100	Jan. 8..	767·09	69 36	
Amelia	230	April 4..	356·54	36 56	" " coasting.
Silvia	109	" 22..	1,707·70	144 64	" " foreign.
F. W. Roebling	35	" 19..	161·97	20 96	" " coasting.
Prince George	600	May 9..	2,040·14	171 20	Twin screw, " foreign.
Elaine	300	" 23..	272·08	29 76	Screw, " coasting.
Bruce	300	" 23..	1,154·59	100 40	" " foreign.
Prince Arthur	600	June 10..	2,041·44	171 28	Twin screw, " "
Rosalind	160	" 27..	2,567·70	213 44	Screw, " "
Olivette	450	" 16..	1,678·19	142 24	" " "
Orinoco	140	" 30..	2,486·49	206 88	" " "
		1902.			
Alert	37	Nov. 20..	105·39	13 40	" " coasting.
Totals			25,769·50	2,226 60	

JOHN P. ESDAILE,
Steamboat Inspector, Halifax, N. S.

Steam Vessels not Inspected for the Year ended June 30, 1902.

NOVA SCOTIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Tusket	3·04	2·00	Laid up, tug.
Alida	64·18	29·52	" "
Gem	4·69	2.12	" fishing boat.
Havana	470·18	245·86	" passenger and freight.
Maple Leaf	129·06	81·31	" ferry boat.
Volunda.	29·80	13.96	" yacht.
Jessie Gray	76·01	47·93	" lighter.
Bessie	10·45	5·74	" passenger.
Victor.	9·62	6·41	" tug.
David Duncan	20·59	10·59	" "
Mable K	15·20	10·34	Not yet inspected.
Elsie,	22·14	15·06	" "
Lennox	66·29	41·76	Laid up, ferry boat.
Lady Glover	137 51	93·51	" passenger and freight.
Susie	26·83	15·74	Not yet inspected, passenger.
Marion	478·49	269·27	" " "
Arbutus	46·76	31·80	" " tug.
Yuba	12·04	6·01	" " passenger.
Robbie Burns	88·95	73·18	" " lighter.
Highland Mary	73·73	50.14	" " "
Albatross	31·38	18·25	Laid up, yacht.
Dolphin	8·07	3·66	" fishing boat, repairing boiler.
Total	1,825 01	1,074 16	

JOHN P. ESDAILE,
Steamboat Inspector, Halifax, N. S.

STEAM Vessels Inspected for the Year ended June 30, 1902.

NOVA SCOTIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1902.		$ cts.	
Star	15	July 1..	6·07	5 48	Screw, ferry, Wallace river.
J. B. Hamblin	100	" 4..	31·71	7 56	" excursion, Halifax harbor.
L. Boyer	100	" 10..	60·00	9 80	" pass. and tug "
Weymouth	100	" 24..	153·93	20 24	" pass. and freight, coasting.
Marion	400	" 25..	478·49	46 24	" " " inland navig.
Zulieka	18	" 26..	12·04	5 96	" " " "
Marietta	20	" 26..	7·04	5 56	" " " "
Iona	22	" 27..	54·72	9 32	" " & tug, Sydney & lakes.
Eldon	38	" 29..	37·91	8 04	" " Strait of Canso.
Malcolm Cann	125	" 29..	211·81	24 96	" " Mulgrave & coastwise.
Trusty	150	Aug. 8..	57·60	9 64	" " & tug, Bridgew'r & sn. pts.
Carrie	40	" 8..	14·83	6 20	" " Chester & Mahone bay
Maggie	37	" 8..	19·26	6 52	" " & tug, Lunenb'g & South.
St. Michael	15	" 10..	39·20	8 12	" " " Liverp'l & shore p.
Commodore	30	" 14..	12·84	6 04	" " Halifax harbour.
Flash	15	" 20..	7·79	5 64	" " "
Collector	40	" 21..	52·02	9 16	" " "
A. C. Whitney	75	" 21..	62·67	10 04	" " "
Mascotte	20	Sept. 17..	35·40	7 80	" " "
Lunenburg	200	Oct. 2..	265·55	29 28	" " & freight, Halifax & coast
Bridgewater	225	" 29..	207·79	24 64	" " Halifax & coast.
Wilfred C	60	" 24..	99·26	12 92	" " "
Goliah	17	Nov. 1..	146·83	19 76	" " & tug "
Pekin	17	" 9..	84·91	11 80	" " & fr'ght "
Westport	125	Sept. 14..	80·09	11 40	" " Yarmouth & coast.
Halifax	240	Nov. 10..	338·42	35 04	Paddle, ferry, Halifax & Dartmouth.
		1903.			
Newfoundland		Feb. 15..	918·75	78 52	Screw, freight, Halifax & coast.
J. L. Nelson	20	Mar. 12..	37·84	8 04	" pass. & freight "
City of Ghent	60	" 24..	198·64	23 92	" " Canada & foreign.
Douglas H. Thomas	18	April 1..	211·91	24 96	" " Halifax & coast.
Percy Cann	35	" 9..	80·06	11 40	" " Yarmouth & coast.
Yarmouth	450	" 9..	1451·92	124 16	" " "
La Tour	60	" 9..	154·93	20 32	" passenger "
Cacouna		" 16..	1450·78	121 08	" freight, Canada & foreign.
Louisburg		" 16..	1850·60	150 28	" " "
Acadia	37	" 21..	74·21	10 92	" ferry, Sydney & North Sydney.
Cape Breton		" 21..	1764·19	146 12	" freight, Canada & foreign.
Flash	15	" 24..	7·79	5 64	" passenger, Halifax harbour
Bonavesta	50	" 26..	1306·33	112 48	" pass. & fr'ght, Canada & foreign
Halifax	500	" 29..	1874·88	158 00	" " " Halifax & coast.
Coban	37	" 30..	1063·30	93 04	" " " Canada & foreign.
Gertrude M	35	" 3..	47·58	8 84	" " " Yarmouth & coast
Evangeline	100	May 14..	69·18	10 52	" " " Canada & foreign
Avon	100	" 14..	64·66	10 12	" excursion & tug, Bay of Fundy
Marion	10	" 17..	10·30	5 80	" pass. & tug, Pictou harb. & riv.
May Queen	25	" 17..	35·92	7 88	" " " "
Arcadia	37	" 19..	61·64	9 96	" " & freight, Pictou & coast.
John L. Cann	125	" 20..	165·55	21 28	" " " Mulgrave & coast.
Fred. L. M. Paint	36	" 20..	88·18	12 04	" " " "
Vega	90	" 20..	132·72	18 56	" " " Strait of Canso & Bras d'Or lake.
Blue Hill	140	" 20..	195·83	23 68	Twin screw, pass. & freight, Baddeck & Grand lake.
Nelson	100	" 21..	64·34	10 12	" " "
Merrimac	20	" 22..	85·80	11 80	Screw, pass. & tug, Strait of Canso.
Weymouth	100	" 23..	153·93	20 24	" " & freight, Sydney & coast
Pawnee	450	" 21..	106·80	16 56	" " " Canada & foreign.
Hygeia	190	" 22..	57·69	9 64	" ferry, Sydney & North Sydney.

SESSIONAL PAPER No. 21

STEAM Vessel Inspected, &c.—Nova Scotia Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1903.		$ cts.	
Peerless	300	May 23..	94·27	39 76	Screw, fy., Sydney & North Sydney.
Harlaw	60	April 22..	451·36	44 08	" pass. & fr'ght, Halifax & coast.
Petrel	20	June 3..	6·36	5 48	" ferry, Richmond & Dartmouth.
Markland	87	" 5..	21·92	6 76	" " Yarmouth harbour.
Tourist	38	" 5..	4·42	5 32	" " "
Marina	75	" 6..	32·46	7 56	" pass. & tug, Annapolis Basin.
Glencoe	40	" 6..	32·21	7 56	" ferry, Annapolis river.
Juno	40	" 7..	9·29	5 72	" passenger, Yarmouth harbour.
Trusty	75	May 3..	57·60	9 64	" pass. & tug, Bridgewater & shore ports.
Dartmouth	435	April 19..	311·23	32 88	Paddle, ferry, Halifax & Dartmouth.
A. C. Whitney	75	June 20..	62·67	10 04	Screw, passenger, Halifax harbour.
Boston	550	" 23..	1694·50	143 52	" pass. & fr't, Yarmouth & foreign
Pastime	150	" 30	67·71	10 44	" excursion, Halifax harbour.

STEAM Vessels Inspected in Canada but registered elsewhere for the Year ended 30 June 30, 1902.

		1902.		$ cts.	
Ocamo	75	June 12...	1,826·54	154 16	Screw, pass. & ft., Canada & foreign.
Erna	100	" 17...	1,530·11	130 40	" " " "
Bruce	300	" 23...	1,154·59	100 40	" " " "
Pro Patria	60	July 1...	759·01	68 72	" " " "
Chebucto	400	" 14 ..	578·48	54 24	" ferry, Halifax harbour.
F. W. Roebling	30	June 18...	161·97	20 96	" pass. and tug, coasting.
Oruro	150	July 21...	1,919·07	161 52	* pass. & ft., Canada & foreign.
Beta	75	Aug. 11...	1,086·67	94 96	" " " "
Prince Edward	600	" 13...	1,413·74	121 12	" " " "
		1903.			
Glencoe	100	Jan. 9...	767·09	69 36	" " " "
		1902.			
Alert	17	Dec. 20..	105·39	13 40	" ferry, Strait of Canso.
		1903.			
Amelia	230	April 5 ..	356·64	36 56	" pass. & ft., Halifax & Coast.
Silvia	109	" 22...	1,707 70	144 64	" " " Canada & foreign.
F. W. Roebling	35	" 30...	161·97	20 96	" " and tug coasting.
Prince George	600	May 8...	2,040·14	171 20	" " freight, Canada & foreign
Bruce	300	" 23...	1,154·59	100 40	" " " "
Elaine	300	" 23..	272·08	29 76	" " " Sydney and Bras d'Or lakes.
Prince Arthur	600	June 18...	2,041·44	171 28	Screw, pass., ft.. Canada & foreign.
Olivette	450	" 19...	1,678·19	142 24	" " " "
Rosalind	160	" 28...	2,567·70	213 44	" " " "
Orinoco	140	" 30...	2,486·49	206 88	" " " "

S. R. HILL,
Inspector of Hull and Equipment, Halifax, N.S.

STEAM Vessels Inspected for the year ended June 30, 1902.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection. Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Waring		July 4..	28·74	7 32	Screw, tug, St. John.
Alice		" 17..	15·77	6 28	" " Buctouche.
Calluna		" 18..	22·26	6 76	" " Richibucto.
Dirigo	40	" 20..	70·13	10 60	" freight and pass., St. John.
Lora Roberts		" 26..	55·98	9 48	" tug, "
Amanda Green		" 30..	19·63	6 60	" " "
Neptune	40	Aug. 1..	71·15	10 68	" " and pass., "
Bessie Ardella		" 5..	17·42	6 36	" freight and fish, St. Andrews.
Dream		" 13..	44·51	8 60	" yacht, St. John.
William Aitken	25	" 15..	74·87	11 00	" tug, Charlottetown.
Nelson		" 15..	32·80	7 64	" " "
Addino Paddock		not issued.	102·94	16 24	Paddle, Ferry, Rothesay.
Elliot		Sept. 3..	367·50	34 36	Screw, freight, foreign.
Beryl Essie		" 17..	23·83	6 92	" tug, Tignish.
Aurora	200	Oct. 2..	364·24	37 12	" pass., St. John, Grand Manan.
Aberdeen	300	" 8..	243·86	27 52	Stern wheel, pass., St. John River.
Vacuna		" 14..	9·52	5 80	Screw, tug and freight, Vanceboro.
Western Extension	280	Sept. 28..	424·89	42 00	Paddle, ferry, St. John.
Kingsville		Nov. 4..	36·59	7 96	Screw, tug, "
Springhill. { B. of Minas / B. of Fundy }	100 / 60	Dec. 4	189·05	23 12	" " " and coasting.
Onangandy	208	" 24..	294·75	31 60	Paddle, ferry. "
		1903.			
Leader		Feb. 19	29·32	7 32	Screw, tug, "
Hercules		Mar. 7..	87·11	11 96	" " "
W. H. Murray		" 7..	72·55	10 84	" " "
E. Ross	40	" 15..	29·63	7 40	" ferry, "
Admiral		" 18..	158·20	17 64	Paddle, tug, " river.
Lilly Glasier		" 18	209·31	21 72	" " " "
Hero		" 18..	127·63	15 24	" " " "
Fred Glasier		" 18..	10·39	5 80	Screw, " " "
Springfield	254	" 18..	232·73	26 64	Stern wheel, pass., " "
G. K. King		" 19..	45·48	8 60	Screw, tug, " "
Nereid		" 20..	30·03	7 40	" " "
Champion		" 21..	190·14	20 20	Paddle, " "
Hampstead	150	" 21..	234 52	26 80	Screw, pass., "
Sea King		" 21..	128·63	15 32	" tug, "
Winnie		" 21..	12·46	5 96	" " "
Maggie M		" 21..	65·78	10 28	" " "
Northumberland	350	" 27..	1,255·46	108 40	Twin screw, pass., N.B. and P.E.I.
Princess	350	" 27..	541·79	51 36	Screw, " N.S. and P.E.I.
Jacques Cartier	300	" 27..	379·96	38 40	Paddle, " P. E. Island.
Star	300	" 29..	461·03	44 88	" " St. John.
Clilton	200	" 29..	138·21	19 04	Stern wheel, " "
David Western	450	" 31..	765·15	69 20	Paddle, " "
Quiddy		" 31.	30·59	7 48	" tug, "
Maggie Miller	150	" 31..	104·66	16 40	" ferry, Kennebecasis river.
Bismark	40	April 4..	49·04	8 92	" pass., St. John river
Hope		" 4..	305·77	29 48	" tug, "
May Queen	370	" 7..	539·40	51 12	" pass., "
Wee Laddie		" 10..	16 60	6 36	Screw, tug, "
Captain		" 14..	68·43	10 44	" " "
Serena E	40	" 15..	24 94	7 00	" " Apple river, N.S.
Fannie		" 16..	33·44	7 64	" " St. John.
Joseph		" 16..	53·78	9 32	" " "
Clymeric		" 21..	10·39	5 80	" yacht, "
Victoria	700	" 22..	1,001·93	88 16	Paddle, pass., "
G. D. Hunter		" 29..	67·97	10 44	Screw, tug, "
Ernest		May 2..	12·58	6 04	" " "

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.—New Brunswick and P. E. Island Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Elliott		May 7	367·50	34 36	Screw, freight, coasting.
Elfin	70	" 8	122·42	17 76	Paddle, ferry, Charlottetown.
Nelson		" 8	32·80	7 64	Screw, tug, "
Electra	40	" 8	106·96	16 56	" pass., "
Wm. Aitken	25	" 8	74·87	11 00	" " "
Fred M. Batt	25	" 9	59·90	9 80	" tug, Charlottetown.
T. A. Stewart		" 12	35·94	7 88	Twin-screw, tug, Charlottetown.
Montague	75	" 12	129·55	18 32	Paddle, ferry, Georgetown.
Frank C. Batt	40	" 13	32·90	7 64	Screw " Summerside.
Flushing	212	" 15	177·65	22 24	" tug, St. John.
James Kolly		" 16	31·21	7 48	" " "
Storm King	40	" 16	107·87	16 64	" " "
Martello		" 17	33·65	7 72	" " "
Marguerite	40	" 19	79·66	6 60	" pass., St. Andrews.
Beaver	20	" 21	84·73	11 80	" " St. John.
Brunswick { B. of Minas / B. of Fundy	300 / 40	" 23	184·27	22 72	" " "
Fanchon	40	" 26	110·61	16 88	Paddle " "
Annie Currier		" 27	10·56	5 88	Screw, tug "
Ada		" 27	3·66	5 32	" yacht "
Meta		" 28	5·05	5 40	" " "
Eva Johnson		" 28	15·77	6 28	" tug "
Randolph		" 28	8·71	5 72	Twin-screw, tug "
Lillie	65	June 2	71·64	10 76	Screw, pass. "
Frederick A		" 5	31·11	7 48	" tug "
Tangent		" 1	35·74	7 88	Twin-screw, tug "
Zuleika		" 6	15·87	6 28	Screw, yacht "
St. Kilda		" 16	55·64	9 48	Paddle, tug, Chatham.
Alexandra { River / Straits	397 / 120	" 16	200·72	24 08	Screw, pass. "
Mascott		" 17	70·50	10 60	" tug "
St. Andrew		" 17	76·64	11 16	" " "
Miramichi	100	" 17	75·18	11 00	" pass. "
St. George	200	" 17	277·78	30 24	Paddle " "
Wenonah		" 17	9·02	5 72	Screw, yacht "
Mary Odell		" 17	28·92	7 32	" fish boat "
Edith		" 17	21·55	6 76	" tug "
Mildred		" 4	40·11	8 20	" " St. John.
Arthur		" 17	4·99	5 40	Screw, yacht, Chatham.
Sarcelle		" 17	21·86	6 68	" tug "
Wm. M		" 17	29·11	7 32	" " "
St. Nicholas	100	" 17	62·20	9 96	" pass. "
Sybella H	40	" 17	70·68	10 68	Paddle, ferry "
Bridgetown		" 18	14·66	6 20	Screw, tug "
Grip		" 18	7·18	5 56	" " "
Grey Loggie		" 18	99·20	12 92	" freight "
Laura		" 18	13·55	6 12	" tug "
Eva		" 18	18·01	6 44	" fish boat "
Rustler	200	" 18	101·54	16 16	Paddle, pass., Newcastle.
Lady Dufferin	40	" 18	47·48	8 76	" ferry "
Bessie		" 19	5·18	5 40	Screw, fish boat "
Irene		" 19	10·29	5 80	" tug "
Zulu		" 19	17·60	6 44	Paddle " "
St. Isidore		" 19	141·75	16 36	" " Chatham.
Total			13,467 40	1,703 76	

W. L. WARING,
Steamboat Inspector.

STEAM Vessels Inspected in Canada but Registered elsewhere, for the Year ended June 30, 1902.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Campobello		Aug. 5..	39·81	8 12	Screw, ferry, Eastport.
Lubec		" 5..	50·94	9 08	" " "
Henry F. Eaton		" 6..	240 04	27 20	" pass., Calais.
R. G. Kellick		" 5..	33·14	7 64	" " Eastport.
Phantom		" 5..	38·28	8 04	" " "
Luce Bros		" 5..	88·82	12 04	" " "
G. B. Otis		" 6..	25·16	7 00	" " "
Ethel		" 6..	28·59	7 32	" " "
Judge Moore		" 7..	27·10	7 16	" " "
Julius Wolff		" 7..	24·01	6 92	" " "
Eastport		" 7..	64·29	10 12	" ferry "
St. Croix		Dec. 16..	1,993·58	167 52	" pass., St. John to Boston.
		1903.			
State of Maine		June 11..	1,409·99	120 80	Paddle, pass. "
Cumberland		April 23..	1,605·82	136 48	" " "
Prince Rupert		June 7..	1,158·44	100 64	" " St. John to Digby
Total			6,828·01	636 08	

W. L. WARING,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels not Inspected for the Year ended June 30, 1902.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not inspected and class of Vessel.
Borrioboola Gha	95 77	60 34	Inspected in July.
Atlas	15 79	10 74	" "
Nellie H	7 52	5 12	" "
Henrietta	19 12	13 00	" "
Victor	45 51	28 67	" "
Squirrel	13 11	8 97	" "
Florence	19 33	13 25	" "
St. Lawrence	50 82	10 51	" "
Nyanza	83 21	49 01	" "
Loyalist	17 57	11 07	Not ready.
Viking	127 70	86 84	Extended certificate to get all together.
Gracie Bell	10 52	7 16	Laid up.
Nautilus	26 58	18 07	"
Delta	19 93	12 12	Could not reach her.
Wondla	25 10	17 10	Out of district.
Killsborough	228 67	66 13	Would not inspect. Owned by P.E.I. Govt.
Scout	9 26	4 07	Getting new engine and boiler.
Peri	11 77	8 00	Laid up.
Jubilee	16 52	11 24	Could not reach her.
Carrie Knight	5 88	4 00	Not applied for.
Nelson	64 34	43 75	Out of district.
Ada G	102 05	30 55	Laid up.
Southport	239 92	186 15	Would not inspect. Owned by P.E.I. Govt.
Derby	11 66	8 66	Laid up.
Lottie	5 00		"
Electric	3 74	2 55	"
Calla	9 79	6 66	"
Total	1,286 18	723 73	

W. L. WARING,
Steamboat Inspector.

STEAM Vessels Inspected for the year ended June 30, 1902.

NEW BRUNSWICK AND P. E. ISLAND DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902		$ cts.	
Jean Kathleen P'ker.	300	July 9..	230·85	10 00	Barge, St. John river.
Dirigo	40	" 20..	70·13	10 60	Screw, pass., St. John.
Neptune	40	Aug. 1..	71·15	10 68	" " "
Marguerite	40	" 7..	19·66	6 60	" " St. Croix.
Adino Padock		Not issued	102·94	16 24	Paddle, ferry, Rothesay.
Serena E	40	April 11..	24·94	7 00	Screw, pass., Cumbld Basin.
Elliot		Sept. 3..	367·50	34 36	" Freight, coasting.
Aurora	200	Oct. 2..	364·24	37 12	" pass., St. John.
Aberdeen	300	" 8..	243·86	27 52	Stern wheel pass., "
Western Extension	280	Sept. 28..	424·89	41 92	Paddle, Ferry, "
Spr'ghill { Bas. of Minas & B. of F'ndy	100 / 60	" 22..	189·05	22 12	Screw, pass., Basin of Minas.
Onangondy	208	Dec. 24..	294·75	31 60	Paddle, Ferry, St. John.
		1903			
E. Ross	40	Mar. 13..	29·63	7 40	Screw, Ferry. St. John.
Springfield	254	" 18..	232 73	26 64	Stern wheel, pass., "
Hampstead	150	" 21..	234·52	26 80	Screw " "
Clifton	200	" 21..	138·21	19 04	Stern wheel " "
Northumberland	350	" 27..	1,255·46	108 40	Twin scr., pass., Northumberland Sts.
Jacques Cartier	300	" 27..	379·96	38 40	Paddle " " "
Princess	350	" 27..	541·79	51 36	Screw " " "
Star	300	" 29..	461·03	44 88	Paddle, pass., St. John.
David Western	450	" 31..	765·15	69 20	" " "
Maggie Miller	150	" 31..	104·66	16 40	" Ferry, Millidgeville.
Bismark	40	April 4..	49·04	8 92	" pass., St. John.
May Queen	370	" 7..	539·40	51 12	" " "
Serena E	40	" 15..	24·94	7 00	Screw " Cumbld Basin.
Victoria	700	" 22..	1,001·93	88 16	Paddle " St. John.
Storm King	40	May 2..	107·87	16 64	Screw " "
Elliot		" 7..	367·50	34 36	" Freight, Coasting
Electra	40	" 8..	106·96	16 56	" pass.. Ch'town, P.E.I.
Wm. Aitken	25	" 8..	74·87	11 00	" " "
Elfin	70	" 8..	122·42	17 76	Paddle, Ferry, "
Fred M. Batt	25	" 9..	59·90	9 80	Screw pass., "
Montagne	75	" 12 .	129·55	18 32	Paddle, ferry, Geo'town.
Frank C. Batt	40	" 13..	32·90	7 64	Screw, " Summerside.
Flushing	212	" 15..	177·65	22 24	" pass., St. John
Beaver	20	" 21..	84 73	11 80	" " "
Brunswick { Bas. of M. B. of Fund.	300 / 40	" 23..	184·27	22 72	" " "
Fanchon	40	" 26.	110·61	16 88	Paddle " "
Lillie	65	June 2..	71·64	10 76	Screw " "
Prince Rupert	850	" 7..	1,158·44	100 64	Paddle " "
Alexandra { 397 River 120 Straits		" 16..	200·72	24 08	Screw " Chatham.
Miramichi	100	" 17..	75·18	11 00	" " "
St. Nicholas	100	" 17..	62·20	9 96	" " "
St. George	200	" 17..	277·78	30 24	Paddle " "
Sybella H	40	" 17..	70·68	10 68	" Ferry "
Lady Dufferin	40	" 18..	47·48	8 76	" " Newcastle.
Rustler	200	" 18..	101·54	16 16	" pass., "
Nyanza	122	" 18..	83·21	11 64	Screw " Bathurst.

I. J. OLIVE,
Hull Inspector, &c.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada but registered elsewhere, for the year ended June 30, 1902.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Campobello	100	Aug. 5..	39·81	8 12	Screw. ferry, Lubec.
Lubec	125	" 5..	50 94	9 08	" " "
Henry F. Eaton	300	" 6..	240·04	27 20	" pass., Calais,
Phantom	50	" 5..	38·28	8 04	" " Eastport.
R. J. Killick	15	" 5..	33·14	7 64	" " "
Luce Brothers	50	" 5..	88·00	12 04	" " "
G. B. Otis	10	" 6..	25·16	7 00	" " "
Ethel	13	" 6..	28·59	7 32	" " "
Judge Moore	13	" 7..	27·10	7 16	" " "
Julius Wolff	25	" 7..	24·01	6 92	" " "
Eastport	146	" 7..	64·29	10 12	" ferry, Lubec.
St. Croix	500	Dec. 16..	1,993·58	167 52	" pass., Boston.
		1903.			
Cumberland	600	April 23..	1,605·82	136 48	Paddle. " "
State of Maine	750	June 11..	1,409·99	120 80	" " "

I. J. OLIVE,
Hull Inspector.

STEAM Vessels Inspected for the Year ended June 30, 1902.

BRITISH COLUMBIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Burt		July 2..	50·41	9 00	Twin screw, tug.
Halifax		" 2..	28·19	7 24	" "
Vancouver		" 2..	49·96	9 00	" "
Dauntless		" 3..	128·30	15 24	" "
New Era		" 2..	55·96	9 48	" "
Casca	150	" 4..	589·73	55 20	Stern wheel, Yukon river.
Ramona	75	" 10..	250·79	28 08	" Fraser river.
Viking		" 6..	20 77	6 68	Screw, tug.
Duchess	40	" 8..	145·48	19 60	Stern wheel, Upper Columbia river.
Hyak	20	" 8..	39·04	8 12	" "
Pert		" 8..	6·44	5 48	Screw, freight "
Selkirk		" 8..	58·49	9 64	Stern wheel, yacht "
Rossland	300	" 11..	883·55	78 72	" frt. & pass., Colum. riv.
Lytton	100	" 11..	451·66	44 16	" " "
Nelson	125	" 12..	496·01	47 68	" Kootenay Lake.
Ymir		" 12..	69·74	10 60	Screw, tug "
Valhalla	30	" 12..	153·23	20 24	" " and pass., Kootenay Lake.
Moyie	250	" 13..	834·81	74 80	Stern wheel, frt. & pass. "
Proctor		" 13..	43·12	8 44	Screw, tug "
Flirt		" 13..	3·58	5 32	" yacht "
Surprise		" 13..	14·80	6 20	" tug "
Kootenay	300	" 14..	117·09	97 36	Stern wheel, frt. & pass., Columb. river.
Illicillewaet	20	" 14..	97·92	12 84	" " "
Minto	250	" 15..	828·91	74 32	" " "
Columbia		" 15..	49·84	9 00	Screw, tug "
Slocan	300	" 16..	578·03	54 24	Stern wheel, frt. & pass., Slocan lake.
Alert		" 16..	3·11	5 24	Screw, pass. "
Sandon	50	" 17..	96 22	12 68	" " "
Arrow		" 17..	4·50	5 40	" tug "
Hercules	50	" 18..	64·68	10 20	" tug and pass, Kootenay lake.
Alberta	200	" 19..	508·15	48 64	Stern wheel, frt. & pass. "
Haylis		" 19 .	43·81	8 52	Screw, tug "
International	300	" 20..	525·55	50 08	Stern wheel frt. & pass. "
Argenta	40	" 20..	206·32	24 48	" " "
Kaslo	500	" 22..	764·77	69 20	" " "
Kokanee	200	" 22..	347·50	35 84	" " "
Archer	40	" 24..	15·32	6 20	Screw " Columbia riv.
Lardeau	17	" 24..	9·60	5 80	" " "
Denver		" 25..	8·51	5 72	" yacht, Shuswap lake.
Joan	400	Aug. 5..	821·21	73 68	Twin screw, frt. & pass., coast B. C.
Danube	300	" 16..	886·89	78 96	Screw, frt. & pass. "
Bermuda		" 23..	72·03	10 76	" tug "
Mamie	12	" 24..	89·60	12 20	" tug and pass. "
Lapwing		Sept. 5..	150·73	17 08	" freight "
Saturna		" 12..	22·05	6 76	" tug "
Surprise		" 12..	74·71	11 00	" " "
Staffa		" 16..	51·30	9 08	" freight "
Willapa	100	" 19..	373·09	37 84	" freight and pass. "
Queen City	100	" 20..	391·21	39 28	" " "
Mystery	20	" 20..	64·80	10 20	" " "
Tees	125	Oct. 3..	679·15	62 32	" " "
Thompson	10	" 16..	149·80	20 00	Stern wheel, Shuswap lake.
Ethel Ross		" 16..	82·05	11 56	" "
Aberdeen	250	July 15..	554·04	52 32	" Okanagon lake.
Thistle		Oct 24..	2·43	5 16	Screw, fishing tug.
Nell		" 11..	207·97	24 64	Twin screw, freight, coast B. C.
Mist		" 25..	28 68	7 32	Screw, yacht "
Charmer	500	Nov. 4..	1,044·41	91 52	" freight and pass. "
Princess Louise	98	" 5..	931·76	82 56	Paddle " "
Delta		" 23..	25·20	7 00	Screw, freight "
Water Lily		Dec. 5..	73·81	10 92	Stern wheel, harbour water boat.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected, &c.,—British Columbia Division.—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and Where Employed.
		1902.		$ cts.	
Willie	27	Dec. 13	82·60	11 64	Stern wh. frt. & pass., Albern[illegible] canal.
Maude		Nov. 21	174·99	19 00	Screw, freight, coast B. C.
		1903.			
Sadie	25	Jan. 11	49·30	8 92	Screw, ft. & pass., coast, B.C.
Otter	70	" 13	365·97	37 28	" " "
Hope	12	" 10	78·49	11 32	" " "
Albion		" 27	88·11	12 04	" tug, "
Thistle	50	" 30	222·36	25 76	" ft. & pass., "
Chieftain		" 30	64·80	10 20	" tug, "
Daisy	15	Feb. 3	60·10	9 80	" tug & pass., "
Barbara Boscowitz	125	" 5	337·92	35 04	" ft. & pass., "
J. L. Card		" 11	141·06	16 28	Twin screw, ft. & pass., "
Clayoquot	25	" 12	87·18	11 96	Screw, " "
Senator	29	" 10	27·63	7 24	" pass., "
Alert		" 25	43·81	8 52	" tug, "
Pilot	22	Mar. 3	279·05	30 32	" tug & pass., "
Oscar		" 5	95·42	12 60	" ft., "
Selkirk	35	" 11	141 63	19 36	" ft. & pass., "
Amur	228	" 7	907·17	80 56	" " "
Wyefield		" 11	3,234·59	266 80	Freight screw, foreign.
Czar		" 19	152·18	17 16	Screw tug, "
Constance	12	" 20	49·52	9 00	" "
Iroquois	40	April 1	195·49	23 60	Screw, ft. & pass., "
Nell	25	" 2	207·97	24 64	" " "
Lorne	20	" 24	287·96	31 04	" tug, "
Yosemite	500	" 26	1,525·03	130 00	Paddle, ft. & pass., "
R. P. Rithet	81	" 28	816·69	73 36	Stern wheel, ft. & pass., Victoria & Fraser River.
York	70	May 12	134·00	18 72	Twin screw, ft. & pass., Okanagon Lake
Revelstoke	90	" 14	308·55	32 72	Stern wheel, ft. & pass., Columbia R.
Fawn		" 14	32·70	7 64	Screw tug, "
Venture		" 28	654·52	57 40	Twin screw, ft., "
Trader	20	June 5	167·18	21 36	Screw, ft. & pass., "
Mount Royal	130	" 9	471·03	45 68	Stern wheel, ft. & pass., Skeena Riv.
City of Nanamio	500	" 9	761·37	68 88	Twin screw, ft. & pass., coast, B.C.
Victoria	10	" 17	2,373·87	197 92	Screw, ft., foreign.
Strathcona	250	" 20	596·28	55 68	St'n wheel, ft. & p., inland waters, B.C.
Comet	12	" 23	85·26	11 80	Screw tug, coast B.C.
*Greenwood		" 23	22·95	13 68	" "
Nagasaki		" 24	15·13	6 20	" "
Saturna		" 24	22·05	6 76	" "
Total			30,782·72	3,184 72	

*Dues and fees for 1901-02.

J. A. THOMPSON,
Steamboat Inspector, Victoria, B C.

STEAM Vessels Inspected in Canada but Registered elsewhere for the year ended June 30, 1902.

BRITISH COLUMBIA DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Majestic	200	July 9..	659·00	60 72	Screw. Ft. & P., Can. & foreign ports.
Queen	402	Aug. 6..	2727·80	226 24	" " "
Mexico	100	" 6..	1672·09	141 76	" " "
Garland	50	" 10..	166·61	21 36	" " "
Cottage City	273	" 12..	1885·11	158 80	" " "
City of Puebla	511	Sept. 2..	2623·88	217 92	" " "
Rosalie	127	" 28..	318·51	33 52	" " "
		1903.			
Dolphin	235	April 8..	824·26	73 92	" " "
Humboldt	311	" 23..	1075·00	94 00	" " "
City of Seattle	592	May 8..	1411·05	120 88	" " "
Umatilla	424	June 11..	3069·76	253 60	" " "
Spokane	297	" 12..	2036·20	170 88	" " "
Total			18469·27	$1,573 60	

STEAM Vessels not inspected for the year ended June 30, 1902.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Victoria	106·60	67·16	Laid up, Stern wheel, F. & P.
Idler	3·88	1·94	" Screw.
Alert	3·11	2·12	" "
Mermaid	128·25	87·42	To be inspected later. Being refit after stand'g.
Sunbury	37·72	26·03	No application. Screw F. & P.
	279·56	184·67	

J. A. THOMSON,
Steamboat Inspector, Victoria, B.C.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the year ended June 30, 1902.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Prospector	120	July 1..	263	29 04	Passenger and freight, Yukon river.
Marjorie	25	" 1..	20	6 60	" "
John C. Barr	170	Oct. 13..	547	51 76	" "
Quick	12	July 11..	32	10 36	" "
Gold Star	130	Aug. 5..	168	21 44	" "
Tyrrell	150	" 8..	678	62 24	" "
Lightning	100	" 26..	557	52 56	" "
*Scotia	100	Sept. 25..	214	43 36	" Atlin lake.
Gleaner	150	" 27..	241	27 36	" Taku "
Kilbourne		" 27..	87	11 96	Tug, Bennett lake.
Mabel F		" 27..	10	5 80	" "
Winneta		Oct. 5..	24	6 92	" British Columbia waters.
Leonora	30	" 2..	33	7 64	" " "
†Saga		" 12..	252	5 00	Freight " "
Fingal		" 8..	91	12 28	" " "
Senator	30	" 23..	28	7 24	Passenger and tug "
Flyer		" 11..	48	8 84	Tug " "
Kildonan		Nov. 4..	57	9 08	" " "
Etta White	15	" 11..	97	12 76	Passenger and tug "
Blonde		" 11..	33	7 64	Tug "
Lottie		" 14..	29	7 32	" "
Star		" 13..	14	6 12	" "
Stampede		" 9..	12	5 96	" "
Hong Kong		" 18..	36	7 88	" "
Clausman		" 6..	72	10 76	Freight "
Belle		" 17..	67	10 36	Tug "
Cassiar	200	" 27..	597	55 76	Passenger and freight "
Fraser		" 9..	36	7 88	Tug " "
Eagle		" 29..	35	7 80	" " "
Eva		Oct. 19..	35	7 80	" " "
Orillia		Dec. 9..	12	5 96	" Fraser river.
Sea Lion		" 17..	6	5 48	" British Columbia waters.
Sea Gull		" 17..	3	5 24	" " "
Psyche		Nov. 4..	3	5 24	Yacht " "
Donney		Dec. 31..	15	6 20	Tug " "
Milkmaid		" 30..	7	5 56	" Fraser river.
		1903.			
Active	20	Jan. 17..	172	21 76	Pass. and tug, British Columbia waters.
Comox	60	" 27..	101	16 08	" "
Transfer	120	" 27..	264	29 12	" Fraser river.
‡Troubador		" 15..	18	12 88	Tug, British Columbia waters.
Coquitlam		Feb. 2..	256	28 48	Pass. and freight "
Ramona		" 12..	251	28 08	" Fraser river.
‡Olive	20	" 11..	71	21 36	" "
Autolycus		" 8..	25	7 00	Tug, British Columbia waters.
Defiance	39	" 8..	90	12 20	Pass. and freight "
Magnet		" 19..	24	6 92	Tug "
Reliance		" 20..	36	7 88	" "
Robert Dunsmuir	40	" 6..	232	26 56	Pass. and freight "
Stranger		" 20..	21	6 68	Tug "
Esperenza		" 20..	31	7 48	" "
Stella		" 20..	16	6 28	" "
Fearless		" 20..	53	9 24	" "
Native		Mar. 1..	52	9 16	" "
Cleeve		" 1..	36	7 88	" "
New Era		" 1..	56	9 48	" "

*Arrears of over 100 tons, 1899, 1900 and 1901. †Special inspection fee. ‡Dues and fees for 1901 and 1902.

STEAM Vessels Inspected, &c.—British Columbia and Yukon Division—*Continued.*

BOILERS AND MACHINERY—*Continued.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Remarks.
		1903.		$ cts.	
Halifax		March 1..	28	7 24	Tug, British Columbia waters.
Vancouver		" 1..	50	9 00	" "
Tyee		" 1..	32	7 56	" "
Capilano	25	" 17..	231	26 48	Pass. and freight "
Bermuda		" 1..	72	10 76	Tug "
Vigilant		" 1..	29	7 32	" "
Enterprise		" 1..	12	17 88	" "
Vulcan		" 1..	77	11 16	" "
Starling		" 1..	8	5 64	" "
Princess May	350	" 20..	1,394	119 52	Passenger and freight, foreign.
Surrey	50	" 25..	263	29 04	" " Fraser river.
North Star		" 15..	8	5 64	Tug, Fraser river.
Firefly		" 15..	46	8 68	" "
Lois	10	" 25..	25	7 00	Pass. and tug, B. C. waters.
Champion		" 25..	100	13 00	Freight, "
Alice		" 1..	35	7 80	" "
Tepic	15	" 25..	71	10 68	Pass. and tug, "
Glen Rosa		April 7..	18	6 44	Tug, Skeena river.
Erie		" 1..	27	7 16	" B. C. waters.
Spray		" 1..	8	5 64	Yacht, Fraser river.
Clara Young		" 1..	31	7 48	Tug "
Chehalis	15	" 1..	54	9 32	Pass. and tug, B. C. waters.
Terra Nova		" 1..	47	8 76	Freight, "
Fern		" 1..	24	6 92	Tug, "
Gipsy		" 1..	10	5 80	" "
North Vancouver	200	" 1..	104	16 32	Pass. ferry, Burrard Inlet.
St. Clair	25	" 10..	68	10 44	Pass. and tug, B. C. waters.
Surprise		" 1..	75	11 00	Freight, "
Evangeline		" 17..	14	not paid	Tug, Alert bay.
Swan		" 18..	36	7 88	" Namu.
Muriel		" 19..	44	8 52	" Lowe inlet.
Nora		" 21..	20	6 60	" Skeena river.
Florence		" 21..	30	7 40	" "
Westminster		" 21..	18	6 44	" "
Maime		" 21..	9	not paid	" "
Hazelton	150	" 21.	378	38 24	Pass. and freight, Skeena river.
Monte Christo	60	" 21..	266	29 28	" "
Lottie N		" 22..	34	7 72	Tug, "
Unican	40	May 1..	137	18 48	Pass. and freight, B. C. waters.
Hubert		" 3..	6	5 48	Yacht, "
Kootenay		" 1..	8	5 64	" "
*Mouping		" 11..	20	19 80	" "
†Dreadnought		" 1..	33	15 28	Tug, "
Beaver		April 1..	545	57 60	Pass. and freight, Fraser river.
Dauntless		May 1..	128	18 24	Tug, B. C. waters.
Minto	20	" 1..	36	7 88	Pass. and freight, Harrison river.
Defender	30	" 1..	216	25 28	" "
Uno		" 1..	12	5 96	Tug, B. C. waters.
‡Bermuda	25	" 1..	72	5 00	Pass. and tug, B. C. waters.
Eagle	12	" 3..	35	7 80	" "
Iris		" 1..	38	8 04	Tug, "
Brunette		" 1..	37	7 96	" "
Albert Lee		" 1..	19	not paid	" "
Viking		" 1..	21	6 68	" "
‡Vancouver		" 1..	50	5 00	Pass. and tug, "
Ruth		" 1..	71	10 68	Tug, "
Superior		" 1..	44	8 52	" "
Dorothy		" 1..	20	6 60	" "
Dolphin		" 1..	20	6 60	" "
Clive		June 1..	35	7 80	" Skeena river.

*Dues and Fee for 1900, 1901 and 1902. † Dues and Fee for 1901 and 1902. ‡ Special Inspection Fee.

STEAM Vessels Inspected, &c.—British Columbia and Yukon Division—*Concluded.*

BOILERS AND MACHINERY—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Canadian	150	June 28..	716	65 28	Pass. and freight, Yukon river.
Dawson	150	" 28..	779	70 32	" "
Sybil	150	" 28..	654	60 32	" "
Total			12,900	1,797 72	

STEAM Vessels Inspected in Canada but registered elsewhere for the year ended June 30, 1902.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS, MACHINERY AND HULL.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.			
Portus B. Wear		July 27..	400	40 00	Passenger and freight, Yukon river.
Sarah	250	" 29..	1211	104 88	" "
Louise	150	Aug. 10..	718	65 44	" "
T. C. Powers	125	" 2..	820	73 60	" "
Leah	135	" 2..	478	46 24	" "
Monarch	125	" 12..	463	45 04	" "
Leon	150	" 27..	692	63 36	" "
Linda	200	" 28..	692	63 36	" "
Robert Kerr	60	Sept. 12..	719	65 52	" "
May West	50	" 14..	134	18 72	" "
Mainlander	200	Jan. 14..	505	48 08	" Puget Sound.
North Pacific	200	May 30..	489	47 12	" "
Hannah	250	June 16..	1211	104 88	" Yukon river.
Total			8,532	786 56	

F. M. RICHARDSON, R.N.R.,
Steamboat Inspector, Vancouver, B.C.

Steam Vessels not inspected for the year ended June 30, 1902.

BRITISH COLUMBIA AND YUKON DIVISION.

BOILERS AND MACHINERY.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.	
Caledonia	569	359	Pass. and freight.	Laid up.
Strathcona	596	376	"	"
Welcome	32	20	"	"
City of Tipella	19	12	Tug.	No application.
On Time	11	4	"	"
Greenwood	23	16	"	"
Rothesay	553	348	Pass. and freight.	Laid up.
Lorellei	32	20	"	To be inspected later on.
White Horse	987	637	"	"
Selkirk	777	490	"	"
Yukoner	781	492	"	"
Columbian	716	455	"	"
Wilbur Crimmin	168	106	"	"
Zealandian	180	141	"	"
Joseph Clossett	147	93	"	"
Bailey	193	132	"	"
Clifford Sifton	291	183	"	"
Victorian	716	455	"	"
Anglian	161	114	"	Laid up.
Eldorado	466	260	"	"
J. P. Light	719	409	Freight.	"
Lightening	557	357	Pass. and freight.	"
Monarch	284	179	Freight.	"
Emma Nott	73	46	"	"
W. Ogilvie	82	55	Pass. and freight.	"
Mabel F.	10	7	Tug.	"
Australian	420	308	Pass. and freight.	"
Kilbourne	87	55	Tug.	"
Total	9,650	6,117		

F. M. RICHARDSON, R.N.R.,
Steamboat Inspector, Vancouver, B.C.

SESSIONAL PAPER No. 21

Steam Vessels Inspected for the year ended June 30, 1902.

BRITISH COLUMBIA DIVISION.

HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
Casca	150	July 4..	589·73	55 20	Stern wheel, Yukon river.
Ramona	75	" 10.	250·79	28 08	" Fraser river.
Joan	400	Aug. 5..	821·21	73 68	Twin screw, waters of B. C.
Danube	300	" 16..	886·89	78 96	Screw, Victoria and northern ports.
Mamie	12	" 24..	89·60	12 20	" " " "
Lapwing		Sept. 5..	150·73	17 08	" waters of B. C., freighting.
Willapa	100	" 19..	373·09	37 84	" Victoria and northern ports
Mystery	20	" 20..	64·80	10 20	" " " " "
Queen City	100	" 20..	391·21	39 08	" " " " "
Tees	125	Oct. 3..	679·15	62 32	" " " " "
Belle	12	" 5..	66·62	10 36	" Vancouver and waters of B.C.
Saga		" 10..	252·47	25 16	Twin screw, freight and fishing.
Senator	30	Sept. 11 .	27·63	7 24	Screw, passenger, inland waters
Nell		Oct. 11..	207·97	24 64	Twin screw, freighting.
Charmer	500	Nov. 4..	1,044·41	91 52	Screw, Victoria and mainland.
Princess Louise	98	" 5..	931·76	82 64	Paddle, " "
Etta White	15	" 11..	97·35	12 76	Screw, Vancouver and northern ports.
Cassiar	200	" 20.	597·18	55 76	" " " " "
Maude		" 21..	174·99	19 00	" freighting.
		1903.			
Hope	12	Jan. 10..	78 49	11 32	" tug and passenger.
Sadie	25	" 11..	49·30	8 92	" " " "
Otter	70	" 13..	365 97	37 28	" freight and passenger.
Comox	140	" 15..	101·17	16 08	" " " "
Transfer	120	" 27..	264·16	29 12	Stern wheel, freight & pass. Fraser R.
Thistle	50	" 29..	222·36	25 76	Screw, freight and passenger.
Chieftain	20	" 30..	64·80	10 20	" " " "
Daisy	15	Feb. 3..	60·10	9 80	" tug and passenger
Barbara Bascowitz	125	" 5..	337·92	35 04	" freight & pass. northern ports.
Robert Dunsmuir	40	" 6..	231·75	26 56	Twin screw, freight and passenger.
Coquitlam	75	" 7..	256·33	28 48	Screw, freight and passenger.
Defiance	39	" 8..	89·88	12 20	" " " "
Senator	30	" 10..	27·63	7 24	" " " "
Olive	20	" 11..	71·32	21 36	For 2 yrs. stern wheel, Fraser river.
Clayoquot	50	" 12 .	87·18	11 96	Screw, freight and passenger.
Pilot	22	March 3..	279 05	30 32	" tug " "
Amur	228	" 7..	907·17	80 56	" freight and passenger
Wyefield		" 11..	3,234·59	266 80	" " Canadian and foreign ports
Selkirk	35	" 11..	141·63	19 36	" " and passenger.
Active	20	Jan. 31..	171 74	21 76	" tug and passenger.
Capilano	25	M'rch 12..	231·14	26 48	" Vancouver and northern ports.
Constance	12	" 20..	49·52	9 00	" tug and passenger.
Princess May	359	" 20..	1,393 76	119 52	Twin screw, B. C. and northern ports.
Iroquois	40	April 1 .	195·49	23 60	Screw, freight and passenger.
Tepic	15	" 1..	70·87	10 68	" tug and passenger.
Nell	25	" 2..	207·97	24 64	Twin screw, freight and passenger.
Surrey	50	" 11..	263 26	29 04	Paddle, ferry, Fraser river.
Beaver	150	" 12..	545·44	51 60	Stern wheel, " "
Lorne	20	" 24..	287·96	31 04	Screw, tug and passenger.
North Vancouver	200	" 25..	103·83	16 32	Screw, ferry, Burrard Inlet.
Yosemite	500	" 26..	1,525·03	130 00	Paddle, Victoria and mainland.
R. P. Rithet	81	" 28..	813·69	73 36	Stern wheel, Victoria and mainland.
Eagle	12	May 3..	34·74	7 80	Screw, tug and passenger.
Vancouver	12	" 7..	49·96	9 00	" " " "
St. Clair	25	" 10..	68·12	10 46	" " " "
Chehalis	15	" 13 .	53·75	9 32	" " " "
Unican	40	" 16.	130·92	18 48	" " " "
Ramona	75	Feb. 12..	250·79	28 08	Stern wheel, Fraser river.
Bermuda	25	May 21..	72·03	10 76	Screw, tug and passenger.

STEAM Vessels Inspected, &c.—British Columbia Division—*Concluded.*

HULL INSPECTION—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Minto	20	May 22..	36·19	7 88	Stern wheel, ferry Fraser river.
Defender	30	" 22..	216·10	25 28	" " " " "
Venture	.....	" 28..	654·52	57 40	Twin screw, freight, northern ports.
Lais	10	April 1..	25·15	7 00	Screw, tug and passenger.
Trader	20	June 5..	167·18	21 36	" freight and passenger.
Superior	25	" 7..	44·18	8 52	" tug and passenger.
City of Nanaimo	500	" 9..	761·37	68 80	Twin screw, freight and passenger.
Mount Royal	130	" 9..	471·03	45 68	Stern wheel, Stikine and Skeena rivers
Victoria	10	" 17..	2,373·87	197 92	Screw Canadian and foreign ports.
Strathcona	250	" 20..	596·28	55 68	Stern wheel, inland waters of B. C.
Comet	12	" 23..	85·26	11 80	Screw, tug and passenger.

STEAM Vessels Inspected in Canada but registered elsewhere for the year ended June 30, 1902.

		1902.			
Majestic	200	July 9..	659·00	60 72	Screw, B. C. ports and Puget Sound.
Queen	404	Aug. 6..	2,727·80	226 24	" " San Francisco.
Mexico	100	" 6..	1,272·09	141 76	" Canadian and foreign ports.
Garland	50	" 10..	166·61	21 36	" " "
Cottage City	273	" 12..	1,885·11	158 80	" " "
City of Pueblo	511	Sept. 2..	2,623·88	270 92	" " "
Rosalie	127	" 28..	318·51	33 52	" " "
		1903.			
Mainlander	200	Jan. 14..	505·19	48 40	" " "
Dolphin	235	April 8..	824·26	73 92	Twin-screw " "
Humboldt	311	" 23..	1,075·00	94 00	Screw " "
City of Seattle	592	May 8..	1,411·05	120 88	" " "
North Pacific	200	June 6..	488·73	47 12	Paddle " "
Umatilla	424	" 11..	3,069·76	253 60	Screw " "
Spokane	297	" 12..	2,036·20	172 88	" " "

R. COLLISTER,
Hull Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected for the Year ended June 30, 1902.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1902.		$ cts.	
W. J. Aikens		July 2..	41·82	8 36	Screw, tug, Thunder bay.
Energy		Not issued	116·45	14 28	" " "
Inez	25	July 3..	59·10	9 72	" tug and pass., Thunder bay,
Georgina	25	" 4..	43·78	8 52	" " "
Herbert		" 6..	21·13	6 68	" tug, Thunder bay.
Inza		" 6..	8·79	5 72	" " "
Circe		" 6..	2·83	5 24	" " "
Orcadia		" 15 .	23·16	6 84	" fish tug, Lake Superior.
Maud C		" 16..	5·16	5 40	" " "
Minola		" 16..	34·95	7 80	" " "
Nettie		" 17..	3·34	5 24	" " "
Rose May		" 17..	3·66	5 32	" " "
Bertha		" 17..	10·95	5 88	" " "
Siskewett	20	" 19	47·17	8 76	" tug and pass., Lake Superior.
Swan		" 19..	7·76	5 64	" " Thunder bay
James Mayhew		" 22..	16·94	6 36	" " Nepigon bay.
Kate Marks		" 22..	54·15	9 32	" " Lake Ellen.
Brothers		" 23..	17·50	6 44	" fish tug, Lake Superior.
Rambler		" 26..	6·14	5 48	" tug, Lake Nipigon.
Widgeon		Aug. 2..	2·21	5 16	" " Lake of the Woods.
Princess		" 3..	7·83	5 64	" " "
Mohican		" 5..	34·20	7 72	" " Rainy lake.
Thistle		Not issued	10·34	5 80	" pass. and frt., Rainy river.
Moose		Aug. 6..	38·30	8 04	" tug, Rainy lake.
Cicela B		" 10..	13·65	6 12	" " "
Lady Trip	10	" 9..	5·32	5 40	" " and pass., Turtle lake.
City of Alberton	25	" 10..	67·72	10 44	" " " Rainy lake.
Maple Leaf		" 12..	81·84	11 56	" " Rainy river.
W. C. Vanhorne		" 14..	59·91	9 80	" " Lake of the Woods.
Ogema		" 31..	29·84	7 40	" fish tug, Lake Winnipeg.
Hazel		" 31..	7·52	5 64	" " "
Gracie B	40	" 10 .	21·18	6 68	" pass., Red river.
Beaver		Sept. 14..	80·25	11 40	Stern pad., Saskatchewan river.
Mountain Bell		Not issued	4·12	5 32	Screw, Bow river, Banff.
Silver Spray		" .	1·56		" pass., Pillecal lake.
*Petrel		Jan. 1..	167·65	36 88	" " frt., Lake Manitoba.
Osprey		Not issued	21·22	6 68	" fish tug "
Princess		" .	6·65	5 56	" pass., Lake Killarney.
Iona		Sept. 26..	39·15	8 12	" tug, Lake Winnipegosis.
Lady Ellen		" 27 .	18·56	6 52	" fish tug "
Manitou	20	" 27..	107·79	13 64	" pass. and frt. "
Isabel		" 27..	60·90	9 88	" tug "
		1903.			
Argyle	150	April 15..	77·70	11 24	" ferry, Rat Port ge & Keewatin
Keenora	500	" 30..	486·34	46 88	Twin screw, pass. and frt. Rat Portage and Fort Frances.
Agwinde	125	" 30..	307·41	32 56	Stern pad. " " "
Catharine S	25	" 29..	66·60	10 36	Screw, pass. and frt., L. of the Woods
Edna Brydges	100	" 30..	176·05	22 08	" " " "
Queen		" 23..	31·65	7 56	" tug, Lake of the Woods.
Ethel Banning		" 23..	37·54	8 04	" " "
Rambler	25	" 30..	25·83	7 08	" " and pass., L. of the Woods
Clipper	40	" 30..	52·95	9 24	" " " "
Pearl		May 2..	10·00	5 80	" " Lake of the woods.
Heather Bell		" 3.	21·18	6 68	" pass. and frt., L. of the Woods
Maple Leaf	75	" 3..	81 84	11 56	" " " "
Rocket		" 14 .	55·61	9 48	" fish tug, Lake Winnipeg,

*Paid fees for 1900 and 1901.

STEAM Vessels Inspected, &c.—Keewatin, Manitoba and North-west Territories Division.—*Concluded.*

BOILERS, MACHINERY AND HULL INSPECTION.—*Concluded.*

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
Fisherman		May 14	44·22	8 52	Screw, fish tug, Lake Winnipeg.
Chieftain		" 14	60·85	9 88	" " "
Angler		" 14	16·16	6 28	" " "
City of Selkirk	75	" 17	457·82	44 64	" pass and frt., Lake Winnipeg.
Premier	60	" 17	413·99	41 12	" " " "
		1903.			
Little Bobs		" 14	13 19	6 04	" fish. tug, Lake Winnipeg.
Daisy		" 14	26 33	7 08	" " "
Miles		" 14	63 04	10 04	" " "
Highlander		" 14	59 24	9 72	" " "
Princess	20	" 17	405 44	40 40	" pass. & frt. "
Frank Burton		" 14	52 00	9 16	" survey "
Idell		" 14	53 92	9 32	" fish. tug "
Balmoral		" 14	36 93	7 96	" " "
Sultana		Not issued	277 65	30 24	" freight "
Vicking		May 17	17 00	6 36	" frt. & pass. "
Gertie H.	200	" 17	90 95	12 28	Stern paddle, pass. & frt., Red river.
Lady of the Lake	20	" 17	201 43	24 08	Screw, pass. & frt., Lake Winnipeg.
Ethel	25	" 31	20 20	6 60	" " Lake of the Woods.
Empress		" 16	129 28	15 32	" tug "
Daisy Moore		" 16	38 31	8 04	" " "
Phantom	40	" 22	55 86	9 48	" pass. & frt. "
Day Star		" 23	12 52	6 04	" private yacht "
Midge		" 24	11 08	5 88	" tug "
St. Joe		" 29	117 64	14 44	" wrecking, Lake Superior.
Shamrock		" 31	79 84	11 40	" tug, Lake of the Woods.
Villeneuve		" 31	27 58	7 24	" " Winnipeg river.
Cruiser		" 31	26 92	7 16	" " Lake of the Woods.
Siskewett		" 22	47 17	8 76	" " Lake Thunder bay.
Hudson Bay Messenger		June 2	8 00	5 64	" priv. yacht, Lake of the Woods.
Spray		" 3	8 99	5 72	" fish. tug "
Gem		" 4	11 08	5 88	" " "
Kennina		" 4	41 86	8 56	" tug "
Keewatin		" 4	41 25	8 28	" " "
Gordon M		" 4	3 01	5 24	" " "
D. L. Mather		" 10	103 32	13 24	" " "
Sport		" 13	16 26	6 28	" " Winnipeg river.
Majestic	40	" 16	135 22	18 80	" pass. & frt., Rainy lake.
Mohican	12	" 16	34 20	7 72	" " "
Thistle	10	" 16	9 00	5 80	" " Rainy river.
City of Alberton		" 17	67 54	10 44	" tug, Rainy lake.
Sultana		" 21	3 35	5 24	" priv. yacht, Lake of the Woods.
Energy	200	" 24	116 45	17 28	" pass. & frt., Thunder bay.
*Dolphin		" 24	12 63	12 08	" tug, Lake Dix Mille Lacs.
William Whyte		" 25	17 81	6 44	" " Lake Wabigoon.
Minniola		" 26	9 20	5 72	" " Lake Manitou.
William Cross	10	" 26	21 66	6 76	" tug & pass., "
Galatia	25	" 27	46 10	8 68	" " Lake Wabigoon.
Irine	10	" 27	9 17	5 80	" " "
Nora	20	" 28	20 23	6 60	" " Eagle lake.
Caro		Not issued	14 47		" tug "
Total			6,450 55	1,084 44	

* Paid fees for 1901 and 1902.

GEO. P. PHILLIPS,
Steamboat Inspector.

SESSIONAL PAPER No. 21

STEAM Vessels Inspected in Canada, but registeed elsewhere, for the Year ended June 30, 1902.

KEEWATIN, MANITOBA AND NORTHWEST TERRITORIES DIVISION.

BOILERS, MACHINERY AND HULL INSPECTION.

Name of Vessel.	Number of Passengers Allowed.	Date Certificate Expires.	Gross Tons.	Tonnage Dues and Inspection Fees Paid.	Class of Vessel and where employed.
		1903.		$ cts.	
America	370	May 27..	681·37	....	Screw, pass., Port Arthur & Duluth.
Seagul	30	June 17..	12·00	.....	" " Fort Frances and Couchiching.
Total			693·37		

STEAM Vessels not Inspected for the Year ended June 30, 1902.

Name of Vessel.	Gross Tonnage.	Registered Tonnage.	Remarks. — Why not Inspected and Class of Vessel.
Pastime	4·00	2·82	Screw yacht, not in commission.
Carry L	14·56	7·99	Side pad., frt., to be inspected, Seine river.
Undine	9·46	6·44	Screw, tug, " Turtle lake.
Minnetonka	68·24	46·37	" " Rainy river.
W. J. Aikens	41·82	25·00	" " Port Arthur.
James Mayhew	16 94	11·64	" " "
Kate Marks	34·15	43·15	" " Lake Ellen.
Geo. Ward	2·39	1·69	" not in commission, Savanne.
Minnehaha	2·42	·64	" " "
Minota	34·95	23·77	" " Rosport.
Ida	19·37	13·37	" " "
Minnewawa	4·61	3·71	Screw, yacht, to be inspected, Banff.
Dolly	2·57	2·00	" tug, " " Winnipegosis.
Mocking Bird	38·02	25·85	" " not in commission, "
Jenny Lind	5·81	4·37	" " " Whitefish lake.
John Glenn	14·07	6·00	" " to be insp'ted, L. of the Woods.
Lotto S	48 03	23·66	" " " Winnipegosis.
Monarch	113·09	57·06	Side pad., tug, " L. of the Woods.
Josie	25·04	16·88	" frt., " Prince Albert.
Klondike	8·05	4·00	Screw, tug, " "
Mountain Bell	6·78	3·85	" " "
Annie Mc	13·42	11·10	" not in commission, Bear lake.
Beaver	34·51	22·21	" to be insp'ted, L. of the Woods.
Athabasca	166·73	125·85	Stern pad., not in commission Athabasca riv.
Lillian B	4·00	1·08	Screw, tug, to be inspected, Slave river.
Alpha	7·50	4·98	" " "
St. Joseph	27·06	16·06	Screw, ft., " McKenzie river.
Graham	360·19	223·51	Stern pad., pass. & ft., Athabasca & Slave R.
St. Alphonse	24·94	14·92	Screw, pass. & frt., McKenzie river.
Wrigley	104·59	66·92	" " "
Sparrow	49·28	27·90	" " "
Gale	2·62	0·97	" to be inspected. Seine river.
Mary Hatch	121·18	82·40	" " Lake of the Woods.
Chieftain	36·26	24·64	" " Rainy river.
Sunbeam	2·86	1·94	" not in commission.
Total	1,489·71	948·94	

GEO. P. PHILLIPS,
Steamboat Inspector.

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1902, their Class and Horse power, whether of Wood or Iron, their Gross and Registered Tonnage; where built; and where and how employed'

WESTERN ONTARIO DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and how employed.
J. L. Beckwith	10·20	Screw.....	Wood ...	61	33	Buffalo, N. Y.	Sault river, tug.
Florence M....	1·66	"	"	8	6	Owen Sound, O	" " "
Venetta.....	5·66	"	"	31	21	Toronto, Ont.	Georgian bay, yacht.
Llano.....	7·18	"	Composite	11	8	" "	Muskoka lakes, "
Ina	2·80	"	"	14	10	" "	" " "
Florence Main.	12·93	"	Wood.....	79	52	Mortimers Pt.	" " passenger.
City of Bala...	8·40	" ...	" ...	74	47	Bala, Ont.	" " "
Algoma.	54·00	"	Steel.....	157	107	Toronto. "	Sault Ste Marie, pass. ferry
Joe.....	6·43	"	Wood.....	57	39	Huntsville "	Lakes at Huntsville, pass.
Lady Franklin	1·20	"	"	5	4	Sparrowlake, O	Sparrow lake & vic'ty "
Penetang.....	20·93	" ..	" .	102	64	Owen Sound, O	Georgian bay, tug.
John McKay..	13·50	" ...	"	34	23	Goderich, Ont.	Lake Huron, fishing tug.
PaulineHickler	8·53	"	"	50	34	Buffalo, N. Y.	Sault Ste Marie, tug.
C.E.Ainsworth	23·26	"	"	76	48	S. SteMarie, M	Lake Superior, fishing tug.
Beatrice M....	4·26	"	"	36	25	Collingwood, O	Georgian Bay, " "
Huronic	244·66	"	Steel.....	3,330	2,211	" Ont.	All lakes and rivers, pass
R. J. Morrell..	10·66	"	Wood.....	40	27	Meaford, "	Georgian bay, fishing tug.
Alice G.	4 80	"	" ...	36	25	Collingwood "	" " " "
J.H.McDonald	13·50	"	"	41	28	" "	" " " "
Pearl	0·83	"	"	6	4	PartySound "	Mill lake, passenger.
Ophir.....	1·20	"	"	11	8	" " "	Georgian bay, yacht.
Espanola.....	0·53	" ...	"	7	5	Toronto, "	Spanish river, passenger.
John J. Noble.	13·80	"	"	33	23	Goderich, "	Georgian bay, fishing tug.
Gravenhurst...	1·63	"	"	29	20	Gravenh'st, "	Muskoka lakes, tug.
W. E. C. U...	5·04	"	" ...	6	4	Detroit, Mich.	Detroit river, yacht.
Sarnia.....	26·66	"	"	85	58	Sarnia, Ont.	Lake Huron, tug.
Mabel M.....	1·20	"	"	7	5	Port Elgin, "	" " "
Tempest	4·80	"	Iron.....	21	14	Clevel'nd, Ohio	Sarnia and vicinity, tug.
F. B. Bradey..	4·80	"	Wood.....	29	19	Dunnville, O.	Lake Erie, "
Gordon Brown.	13·50	"	"	33	22	Port Stanley, O	" " fishing tug.
Menodora.....	20·73	"	"	73	50	Midland, Ont.	Georgian bay, tug.
Traveller	118·03	"	"	438	248	Cheb'gan, Wis.	All lakes "
Balize.....	98·66	"	"	250	158	Clevel'nd, Ohio	" " "
Kate.....	4·16	"	Composite	22	15	Toronto, Ont..	Kingston & vicinity, yacht.
Frank.....	9·60	.....	Wood.....	185	154	Bay City, Mich	Owen Sound Har., dredge.
Nymph.....	14·37	"	" ...	29	20	Milford bay, O	Muskoka lakes, passenger.
Tadinac.....	1·20	"	"	9	6	Collingwood, O	Georgian bay, yacht.
Minnicog.....	5·23	"	"	35	24	" Ont.	" " passenger.
Total.	800·53			5,550	3,669		

JOHN DODDS,
E. W. McKEAN,
Steamboat Inspectors, Toronto.

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1902; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built; and where and how employed.

EAST ONTARIO DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
White Star....	1·20	Screw	Wood	8·88	6·04	Lakefield, Ont.	Cos. Vict. & Peterboro, tug.
Viper.....	1·66	"	"	7·50	5·10	Kingston, Ont.	Pleasure yacht.
Marie.....	1·20	"	"	3·22	2·19	Detroit, U.S..	" "
Dorcas.....	0·53	"	"	2·51	1·71	Kingston, Ont.	River St. Lawrence.
Carmita	0·83	"	"	.....	.....	Carleton Place	Carleton Place & Innesville.
Sarah A.....	0·83	"	"	1·91	1·30	Rockport, Ont.	River St. Lawrence.
Frontenac.....	17·34	"	"	110·76	63·94	Garden Island	" tug.
Martha	1·30	"	"	2·42	1·65	Kingston, Ont.	" pass.
Jessie Bain....	14·13	"	"	66·58	41·23	Clayton, N.Y.	" survey boat.
Total	39·02	.....	.....	203·78	123·16		

THOS. P. THOMPSON,
Steamboat Inspector.

MONTREAL DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Carmita	0·8	Screw ...	Wood	9	8	Carleton Place	Lake Nipissing, pleasure
King Edward..	48·0	Paddle....	Steel	571	449	Wilmington, N.S..	yacht. Lakes, passenger.
Salaberry	13·5	Screw	Wood ...	222	142	Valleyfield....	R. St. Law., pass. & frt.
St. Louis.....	2·1	"	" ...	29	20	.....	" pleasure yacht.
Amy.....	10·8	"	"	40	27	Cornwall	River, tug.
Gertie.....	4·8	"	"	21	14	Lachine	Canal "
May	3·6	"	" ...	21	15	Middleton Ct., U.S..	R. St. Lawrence, pleasure yacht.
Coulonge.....	2·7	Paddle....	" ...	18	12	Sand Point,	Ottawa river, warp tug.
Leo.....	0·53	Screw	"	2	1	Ont.....	" ferry.
Monarch	16·0	Paddle....	"	37	.....	Montreal..... Sturgeon Falls	Lake Nipissing, warp tug.
Madoc.....	0·5	"	"	8	6	" .	" "
Alice.....	8·1	Screw	"	26	18	Kippewa	Lake Kippewa, passenger.
Total	111·43	.. ..	... .	1,004	712		

WM. LAURIN,
LOUIS ARPIN,
Steamboat Inspectors.

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1902; their Class and Horse-power; whether of Wood or Iron; their Gross and Registered Tonnage; where built; and where and how employed.

QUEBEC DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
L'rd Strathcona	212·6	T.S., tug..	Steel.....	495	76	South Shield, 1902..	T.S., pass. and tug, used for wrecking.
Gaspésien ex Darkworth..	70·01	Scr'w pass	Iron.....	490	287	New Castle, 1874.... .	Screw, pass., Montreal and Gaspé coast.
Alcyon.....	4·26	T.S., ferry	Wood....	44	30	St. Anne Chicoutimi, 1902	T.S., ferry boat, between Chicoutimi & St. Anne.
King Edward .	58 06	Scr'w pass	Steel.. ...	355	155	Hull, 1902 ...	Screw, pass., Montreal and Labrador coast.
Maria	9·6	" tug.	Wood....	31	21	Portneuf, 1901	Screw, tug, Montreal and Quebec.
Mary	29·06	" pass	Iron.....	108	59	Hull, 1884....	Screw, pass., Quebec and Labrador coast.
Murial	24·0	" tug.	Wood....	64	44	Quebec, 1902..	Screw, tug, Quebec and Chicoutimi.
St. Louis.....	2·13	" " .	"	17	11	Grande Piles, 1901	Screw, tug, St. Maurice River.
Ontaritze.....	2·13	" " .	"	18	12	Quebec, 1902..	Screw, tug, L'k St. Joseph.
Roberval	9·6	Pad. pass.	Composite	126	71	Roberval, 1902	Pad., pass., Roberval and Paribonka.
Samson.....	6·6	T.S., pass.	" .	94	64	Grande Piles, 1901.....	T.S., pass., Grandes Piles and Latuque.
St. Louis de Matebatchouan	2 4	Screw tug.	Wood....	30	20	Matebatchouan, 1902....	S.T., Lake St. John.
Total	429·85	... .	.....	1,872	850		

JOS. SAMSON,
Steamboat Inspector.

NOVA SCOTIA DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Harbinger.....	16·6	Screw....	Wood....	108·56	46·19	Shelb'rne, N.S.	Fishing boat, coasting.
Messenger . .	24·0	"	"	111·53	49·16	" "	" & pass., coasti'g.
City of Ghent..	32·6	"	Iron.....	198·64	119·15	Gainsby, G.B.	Pass. and frt., coasting.
Mikado.....	18·2	" .. .	Wood....	43·94	29·88	Dartm'th, N.S.	Lighter, Halifax harbour.
Fred. L. M. Paint.....	24·0	"	"	88·18	39·40	P't Hawk's'b'y	Pass., Strait of Canso.
Pawnee.....	22·8	"	"	106·80	64·73	Athens, N.Y., U.S.A.	" Bras d'Or Lakes.
Markland.....	6·0	"	"	21·92	14·91	Yarm'th, N.S.	" Yarmouth, N.S.
Alexandra.....	12·3	" ...	" ..	33·67	22·90	Sorel, P.Q....	Yacht, Halifax harbour.
Total	156·5	....	....	713·24	386·32		

J. P. ESDALE,
Steamboat Inspector, Halifax, N.S.

SESSIONAL PAPER No. 21

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1902, their Class and Horse-power, whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Addino Paddock.	5·0	Pad., ferry	Wood	102·94	64·85	Kingston, N.B	No certificate was issued.
Clymens	1·6	Screw, yht	" ...	10·36	7·07	St. John, "	Yacht, St. John harbour.
Brunswick	41·6	" pass.	"	184·27	72·72	Canning, N.S.	St. John, N.B., Canning, N.S., pass. and freight.
Zulika	4·5	" yacht	"	15·87	10·79	Gloucester, Mass., U.S.A.	Yacht, St. John river.
Alexandra. ...	38·5	" pass.	" ...	200·72	136·49	Chatham, N.B	Passenger, Miramichi river.
Grey Loggie...	12·0	" fr'ght	"	99·20	67·46	Loggieville, N.B.	Freight, coasting.
Total....	103·2			613·39	359·38		

W. L. WARING,
Steamboat Inspector.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Dauntless.	27·3	Tug.....	Wood.....	128·30	88·53	New Westminster.	Coast B C., towing.
New Era.....	8·2	"	"	55·93	37·06	Vancouver....	" trading.
Viking	5·6	"	"	20·77	14·13	"	Fraser river, fishing tug.
Surprise... ...	2·7	"	"	74·71	50·81	"	Coast B.C., towing.
Wyefield.....	213 0	Freight...	Steel.	3,234·59	2,088·59	Port Glasgow, Scotland.	B. C. and foreign ports, freight.
York.	12·9	Twin sc'w.	" ...	134·00	91·12	Toronto.....	Okanagan lake, freight and passenger.
Revelstoke....	9·6	Stern wh'l	Wood.....	308·55	178·59	Nakusp, B.C..	Columbia river, freight and passenger.
Venture	19·2	Twin s'cw.	"	654·52	409·15	Victoria	B. C. and foreign ports, cattle trade.
Mount Royal..	13·0	Stern wh'l	"	471·03	295·90	"	Skeena river, freight and passenger.
Victoria.....	197·3	Freight...	Iron..	2,373·87	1,506·60	Jarrow-on-Tyne, Eng.	B. C. and foreign ports, freight.
Total.....	508·8			7,456·30	4,760·48		

J. A. THOMPSON,
Steamboat Inspector.

VICTORIA, B.C.

STATEMENT of the Number of Steam Vessels added to the Dominion during the Year ended June 30, 1902, their Class and Horse-power, whether of Wood or Iron; their Gross and Registered Tonnage; where built, and where and how employed.

VANCOUVER AND YUKON DIVISION.

Name of Vessel.	Horse-power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where Built.	Where and How Employed.
Princess May	250·0	Twin sc'w.	Steel.	1,394	697	Newcastle on Tyne	Pass. & f'ght, Vanc'r & f'gn.
Cassiar	42·6	Screw.	Wood	597	383	Vancouver..	" B.C waters.
Brittania	33·3	"	"	326	222	"	" "
Superior	10·0	"	"	44	30	Ladners, B.C.	" tug, "
Ruth	13·5	"	"	71	48	Port Mooody, B.C	Tug, "
Unican	20·0	"	"	137	89	Vancouver..	Pass. & f'ght, "
Glen Rosa	2.4	"	"	18	12	"	Tug, Skeena river.
Clive	9·0	"	"	35	24	New Westminster.	" "
Dorothy	9·0	"	"	20	13	Vancouver..	" B.C. waters.
Albert Lee	2·0	"	"	19	13	New Westminster.	" Fraser river.
Milkmaid	0·3	"	"	7	5	Vancouver..	" "
Orillia	0·8	"	"	12	9	New Westminster.	" "
Fern	3·5	"	"	24	17	Vancouver	" "
Dolphin	8·9	"	"	20	14	Lund, B.C.	" "
Viking	5·6	"	"	21	14	Vancouver..	" "
Hubert	0·8	"	"	6	4	"	Yacht, "
Kootenay	2·5	"	Composite	8	5	Nelson, B.C	" "
Psyche	1·5	"	Wood	3	2	Vancouver.	" "
La France	3·2	Stern wh'l	"	201	169	Le Barge, Y.T.	Pass. & fr'ght, Yukon river.
Total	418·9			2,957	1,770		

VANCOUVER, B.C.

F. M. RICHARDSON, R.N.R.,
Steamboat Inspector.

KEEWATIN, MANITOBA AND NORTH-WEST TERRITORIES.

Name of Vessel.	Horse Power.	Class.	Wood, Iron or Steel.	Gross Tonnage.	Registered Tonnage.	Where built.	Where and How employed.
Gracie B	2·7	Screw	Wood	21.18	13·79	Winnipeg.	Red River, passenger yacht.
Mountain Bell	0·5	"	"	4·21	3·46	Collingwood	Bow River, Banff, passenger.
Thistle	2·4	"	"	9·00	5·40	Rainy River	Rainy River, pass. & freight.
Ogima	2·7	"	"	29·84	14·44	Selkirk	Lake Winnipeg, fish. tug.
Daisy	3·3	"	"	26·33	7·37	"	" "
Little Bobbs	1·2	"	"	13·19	8·79	"	" "
Laura Grace	16·0	"	"	85·56	58·19	Collingwood	Lake Superior, tug.
Eland	2·7	"	"	30·49	20·42	Selkirk	Lake Winnipeg, fish. tug.
Viking	4·0	"	"	15·25	10·37	Rosport	Lake Superior, fish. tug.
Rose May	0·5	"	"	3·66	1·74	"	" "
Maud C	1·7	"	"	5·16	3·25	"	" "
Edith	2·7	"	"	42·95	29·49	Rat Portage	Lake of the Woods, frt. & tug.
Maple Leaf	0·5	"	"	5·21	3·55	Rosport	Lake Superior, fish. tug.
	40·9			292·83	180·36		

GEO. P. PHILLIPS,
Steamboat Inspector.

STATEMENT of Steam Vessels lost, broken up or laid up, as unfit for service, in the Dominion during the year ending June 30, 1902, and where and how employed.

WEST ONTARIO.

Name of Vessel.	Where and How last employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Geo. Swann	Lake Huron, fishing tug	18	Screw, dismantled.
J. L. McEdwards	Welland Canal, tug	21	" "
Alpha	Sault and vicinity, tug	34	" "
Florence	Lake of Bays, tug	27	" "
Georgia	Georgian Bay, "	28	" "
G. A. Ranney	Little Current and vicinity, tug	14	" foundered.
Mascot	Georgian Bay, fishing tug	21	" dismantled.
Siesta (of Kingston)	" passenger	15	" "
Maybird	Toronto and vicinity, freight	46	" "
E. Windsor	Wallaceburg & vicinity, freight	86	" foundered.
	Total	310	

JOHN DODDS,
E. W. McKEAN,
Steamboat Inspectors, Toronto, Ont.

EAST ONTARIO.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and Reason of Unfitness.
Hero	Trenton and Prescott, passenger.	342·12	Paddle, destroyed by fire.
James Swift	Kingston and Ottawa "	265·92	Screw, injured by fire; was repaired and name changed to Rideau King.
Fearless	River St. Lawrence, tug	46·38	Screw, Hull used up.
	Total	654·42	

THOS. P. THOMPSON,
Steamboat Inspector.

STATEMENT of Steam Vessels lost, broken up or laid up, &c.—*Continued.*

MONTREAL DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Monarque	River, tug	136	Paddle, wrecked in the ice.
Tiber	Freight and passenger, coasting	1,736	Screw, foundered.
Hiram Robinson	River, tug	61	Twin screw, dismantled.
Shickluna	" "	66	Screw, broken up.
Hurtubise	" "	46	" "
Eileen	" "	11	" "
Mattawa	" passenger	22	" unfit for service.
Lottie	" "	10	" "
Thurso	" ferry	20	Paddle "
W. Ross	" tug	14	Screw, broken up.
Winona	" "	12	" wrecked in the ice.
Gertie	Canal "	17	" dismantled.
	Total	2,151	

WM. LAURIE,
LOUIS ARPIN,
Steamboat Inspectors.

QUEBEC DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Nil			

JOS. SAMSON,
Steamboat Inspector.

NOVA SCOTIA DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Scotia	Tug, Avon river	41·58	Screw, broken up.
Alpha	Passenger, coasting	306·91	" "
City of St. John	" "	709·12	Paddle "
Pinafore	Tug "	25·86	Screw "
Fairy	Water boat, Lunenburg	15·55	" sold to foreigners.
Richelieu	Yacht, Halifax harbour	33·67	" name changed to Alexandria.
	Total	1,132·69	

J. P. ESDAILE,
Steamboat Inspector, Halifax, N.S.

SESSIONAL PAPER No. 21

STATEMENT of Steam Vessels lost, broken up or laid up, &c.—*Continued.*

NEW BRUNSWICK AND PRINCE EDWARD ISLAND DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Addino Paddock	Ferry, Rothesay to Clifton	102·94	Paddle, burned at Clifton, King's Co., June 15, 1902; cause unknown.
Lina	Tug, Miramichi river	26·40	Screw, machinery taken out and put in freight schooner Grey Loggie.
	Total	129·34	

W. L. WARING,
Steamboat Inspector.

BRITISH COLUMBIA DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Red Star	Kootenay lake, towing	14·81	Screw, tug, broken up.
Marion	" "	14·78	" " "
Penticton	Okanagon lake "	49·69	" " "
	Total	79·28	

J. A. THOMSON,
Steamboat Inspector, Victoria, B. C.

BRITISH COLUMBIA AND YUKON DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Swan	Tug, B. C. waters	17	Screw, hull condemned.
City of Columbia	" " "	26	" " "
Viking	" " "	27	" burnt.
Advance	" Skeena River	36	" hull condemned.
Vera	" " "	6	" machinery taken out.
Royal City	P. and F., Fraser River	200	Stern wheel, burnt.
Goddard	Tug, Yukon River	87	" sunk.
Glenora	P. and F., Yukon River	542	" burnt.
Mona	" " "	278	" "
Flora	" " "	101	" dismantled.
Ora	" " "	101	" "
Nora	" " "	101	" "
Gold Star	" " "	168	" "
Clara	" " "	144	" "
		1,828	

F. M. RICHARDSON,
Steamboat Inspector, Vancouver, B C

STATEMENT of Steam Vessels lost, broken up or laid up, &c.—*Concluded.*

KEEWATIN, MANITOBA AND N. W. T. DIVISION.

Name of Vessel.	Where and how last employed.	Gross Tonnage.	Class of Vessel and reason of Unfitness.
Cecila B.	Tug, Rainy lake	13·65	Screw, hull condemned.
Hazel	" Lake Winnipeg	7·52	" " "
Squaw	" " of the Woods	21·60	" " "
Harry Montgomery	" " Winnipeg	3·65	" " "
Nettie	" " Superior	3·34	" " "
Sultana	" " Winnipeg	277·65	" machinery taken out, hull converted into a barge.
		327·41	

GEO. P. PHILLIPS,
Steamboat Inspector.

LIST of Certificates of Competency and Temporary Certificates granted to Engineers of Steamboats, during the year ended June 30, 1902.

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1901.					$ cts.
2961	July 2..	Alexander Duprey	Temporary	Pictou, N.S.	Halifax	2 00
2962	" 2..	Napoléon Dontigny	"	Grandes Piles, P.Q.	Grandes Piles.	2 00
2963	" 2..	Edouard Rivard	"	"	"	2 00
2964	" 2..	Edward Cowan	"	Halifax, N.S.	Halifax	2 00
2965	" 2..	Geo. Edward Morton	4th Class	Windsor, Ont.	Windsor	5 00
2966	" 2..	Chas. F. Brown	Temporary	Brockvllle, Ont.	Kingston	2 00
2967	" 3..	Frederick Windsor	"	Callandar, Ont.	Callandar.	2 00
2968	" 3..	John McCaw	"	Dorset, Ont.	North Bay	2 00
2969	" 9..	Patrick Burke	4th Class	Victoria, B.C.	Victoria	5 00
2970	" 9..	James Cochrane	4th "	Nelson, B.C.	"	5 00
2971	" 9..	Jas. Lawrence	Temporary	Parry Sound, Ont.	Parry Sound.	2 00
2972	" 9..	Wilfred France, jr.	"	Muskoka Mills, Ont.	Penetang'hene	2 00
2973	" 12..	Irénée Rivard	"	Grandes Piles, P.Q.	Grandes Piles.	2 00
2974	" 12..	Théophile Côté	"	"	"	2 00
2975	" 13..	Timothy Whitred	"	Hastings, P.Q.	Hastings	2 00
2976	" 13..	Mitchell Kenville	"	Brockville, Ont.	Brockville	2 00
2977	" 13..	Andrew Lajeunesse	"	Peterboro, Ont.	Peterboro.	2 00
2978	" 13..	John McGraw	"	Brockville, Ont.	Brockville	2 00
2979	" 13..	Zaccheus White	"	Lakefield, Ont.	Lakefield	2 00
2980	" 19..	Geo. Thos. Leach	"	Montreal, P.Q.	Montreal.	2 00
2981	" 22..	Wilfried Trottier	"	Roberval, P.Q.	Roberval.	2 00
2982	" 22..	Geo. Fredk. Beaumont	"	Bracebridge, Ont.	Port Carling.	2 00
2983	" 22..	Wm. J. McEntyre	"	Port Sidney, Ont.	Toronto	2 00
2984	" 22..	George Moreau	"	Waubaushene, Ont.	Waubaushene.	2 00
2985	Aug. 1..	Pierre Marchildon	"	Sturgeon Falls, Ont.	Montreal	2 00
2986	" 1..	Jos. G. Sampson	"	North Hatley, P.Q.	North Hatley.	2 00
2987	" 6..	John McCoy	"	Amherstburgh, Ont.	Amherstburgh	2 00
2988	" 9..	Jeremiah Downey	"	Rat Portage, Ont.	Rat Portage	2 00
2989	" 9..	Wm. F. Brown	"	Winnipeg, Man.	Winnipeg.	2 00
2990	" 9..	Chas. W. Dalby	"	Rat Portage, Ont.	Rat Portage.	2 00
2991	" 9..	Wm. Humphreys	"	Dryden, Ont.	Wabigood	2 00
2992	" 9..	Ronald Fredk. Link	"	Gravenhurst, Ont.	Port Carling.	2 00

SESSIONAL PAPER No. 21

List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Con.*

Number of Certificate.	Date of Certificate	Name.	Grade.	Address.	When Examination was passed.	Fee.
	1901.					$ cts.
2993	Aug. 19..	Thos. Henry Wilson	Temporary ...	Fort Frances, Ont..	Fort Frances..	2 00
2994	" 19..	Wm. Keating...	"	Halifax, N.S.... .	Halifax	2 00
2995	" 19..	James Connolly.....	" ..	Niagara on the Lake....	Niagara on the Lake.	2 00
2996	" 27..	John A. Camber.....	"	Georgeville, P.Q.....	Georgeville....	2 00
2997	" 27..	Ernest Gouin..	4th Class	Lachine, P.Q.....	Montreal.....	5 00
2998	" 27..	George Edwin Scott.....	Temporary ...	Guysboro, N.S.....	Halifax	2 00
2999	" 27..	Alexander Anderson.....	4th Class	Halifax, N.S.....	"	5 00
3000	Sept. 17..	Clovis Bellefeuille, jr.....	Temporary ...	Valleyfield, P.Q.....	Montreal. ...	2 00
3001	" 17..	Henry Good.....	" ..	Napanee, Ont.....	Kingston.....	2 00
3002	" 17..	Wm. John Poole.....	"	Poole's Resort, Ont.....	"	2 00
3003	" 17..	Fredk. M. Young	"	Young's Point, Ont.....	"	2 00
3004	" 17..	Martin Boston.....	" ...	Apple River, N.S.	St. John, N.B.	2 00
3005	" 17..	Albert Martin	"	Gravenhurst, Ont.....	Gravenhurst..	2 00
3006	" 17..	Wm. B. Thomson.....	4th Class	Victoria, B.C.....	Victoria, B.C.	5 00
3007	" 17..	Alexander P. Cowie.....	4th "	Douglastown, N.B . .	St. John, N.B.	5 00
3008	" 17..	Albert L. Prince.....	2nd " U.K.	St. John, N.B....	" .	5 00
3009	" 23..	Philippe, Blette....	4th "	Sorel, P.Q	Sorel.	*
3010	" 24..	Frank C. Ward	3rd "	Halifax, N.S..... ..	Quebec.....	5 00
3011	Oct. 4..	Albert Yetter.	Temporary ...	Dartmouth, N.S.....	Halifax.....	2 00
3012	" 4..	Herbert R. Stevens.....	" . ..	Huntsville, Ont.....	Huntsville....	2 00
3013	" 4..	Loren B. Church.	"	Chester, N.S...	Halifax	2 00
3014	" 24..	Henry Webster.....	2nd Class.....	Halifax, N.S.....	"	5 00
3015	" 24..	William Belsom..... ..	4th " . . .	Windsor, Ont.	Windsor, Ont.	5 00
3016	" 24..	George D. Collins	3rd "	Yarmouth, N.S.....	Halifax ...	5 00
3017	Oct. 29..	George Shannon.....	4th Class.....	Burritt's Rapids, Ont....	Kingston.....	5 00
3018	" 31..	Wm. Powles.....	Temporary ...	Tyendinaga. Ont.....	" .	2 00
3019	" 31..	John C. Hudson..	"	Barrys Bay, Ont.....	Barrys Bay...	2 00
3020	" 31..	Martin L. Crandell.....	"	Port Perry Ont.....	Kingston.....	2 00
3021	Nov. 7..	Wm. Noonan.....	1st Class.....	Hamilton, Ont.....	Toronto	5 00
3022	" 7..	Jas. Clifford Kelly.....	2nd " U.K.	Halifax, N.S.....	Halifax.....	5 00
3023	" 16..	John Ezra Schell	2nd " "	Victoria, B.C..... . . .	Victoria.....	5 00
3024	" 16..	David McKechnie	3rd Class.....	Slocan, B.C.....	" .	5 00
3025	Dec. 7..	John Gillis Clark.....	2nd " U.K.	Charlottetown, P.E.I...	Halifax.....	†
3026	" 7..	Charles LeRiche	4th Class.....	Garden Island, Ont.....	Kingston.. ..	5 00
3027	" 7..	Joseph Sauvageau.....	4th "	Champlain, Que.....	Montreal.....	5 00
3028	" 7..	Robert C. Sinclair.....	4th "	Wiarton, Ont.....	Toronto	5 00
3029	" 30..	John Henry Near.....	4th "	Point Edward. Ont. ...	Sarnia..	5 00
3030	" 30..	George W. Dean	4th "	Fort Erie, Ont	Toronto.....	5 00
3031	" 30..	Fred K. Allen Dunn.....	4th "	Orillia, Ont.....	"	5 00
3032	" 30..	Jas. Wilson Smedley.....	4th "	Victoria, B.C.....	Victoria.....	5 00
3033	" 30..	Arthur Lee.....	4th " . .	Vancouver, B.C...	Vancouver....	5 00
3034	" 30..	John E. Angus.....	4th "	Gore Bay, Ont.....	Little Current.	5 00
3035	" 30..	Leonard Rumley.....	4th "	Meaford, Ont.	Thessalon.....	5 00
3036	" 30..	Joseph Falardeau.....	4th "	Village Bienville, Que...	Quebec.....	5 00
3037	" 30 .	John Wm. Whiteworth...	3rd "	Victoria, B.C.....	Victoria.....	5 00
3038	" 30..	Lorne R. Unsworth	3rd "	Charlottetown, P.E.I...	St. John.....	5 00
3039	" 30..	Albert E. Lewis.....	3rd "	Bruce Mines, Ont.....	Sault St. Marie	5 00
3040	" 30..	Duncan McLeod	2nd "	Collingwood, Ont.....	Toronto	5 00
3041	" 30..	Jas. J. Flanagan	2nd " U. K.	Victoria, B.C.....	Victoria.. ..	5 00
3042	" 30..	Arthur Wm. Moody.....	2nd " " .	Halifax, N.S.	Halifax-. ..	5 00
3043	" 30..	Thos. R. Ferguson.....	1st " " .	Quebec, Que.....	Quebec.... ..	5 00
3044	" 30..	Thos. W. Allan	1st " " .	Vancouver, B.C.....	Vancouver....	5 00
3045	Jany. 8..	Richard J. Riley....	Temporary....	Annapolis, N.S.	St. John	2 00
3046	" 10.	Kenneth Dunbar.....	4th Class....	Montreal, Que.....	Montreal.....	5 09
3047	" 10..	Philip J. Lahey.....	4th "	Dartmouth, N.S.....	Halifax.....	5 00
3048	" 10..	Ernest Leclaire	3rd "	Lachine, Que.	Montreal.....	5 00
3049	" 10..	Damon S. LaRue.....	3rd "	Desoronto, Ont.....	Kingston.....	5 00
3050	" 10..	Peter J. McKanna.	4th " ..	Brewers Mills, Ont.	"	5 00
3051	" 22..	Edgar A Prince.....	4th " ..	Toronto, Ont..	Toronto	5 00
3052	" 22..	John B. McLaren.....	4th "	Owen Sound. Ont	"	5 00
3053	" 22..	Thomas B. Jones.....	4th "	Kingston, Ont..... ...	Kingston.. .	*
3054	" 22.	John Burr.....	4th "	Owen Sound, Ont.....	Toronto	5 00
3055	" 22..	Alfred Ouellet.....	4th " ...	St. Jean Portjoli, Que...	Quebec..... .	5 00
3056	" 22..	Jonas Johnson.....	4th " ...	Vancouver, B.C.....	Vancouver....	5 00

* Second examination. † Exchanged certificate.

List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Con.*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1902.					$ cts.
3057	Jan. 22.	Wm. Wallace McLaren	2nd " U. K.	Georgetown, P.E.I.	St. John	5 00
3058	" 22.	Arthur F. Foote	2nd Class	Toronto, Ont.	Toronto	5 00
3059	" 22.	Charles A. Sullivan	2nd "	Windsor, Ont.	"	5 00
3060	" 22.	William Tracey	Temporary	Barrie, Ont.	"	2 00
3061	" 22.	Clowes Banks	"	St. Marys, N.B.	St. John	2 00
2062	" 22.	John Leonard	"	St. John, N. B.	"	2 00
3063	" 29.	Horace Lee Waring.	1st Class U.K.	" "	"	5 00
3064	" 29.	George M. Taylor	4th Class.	Vancouver, B.C.	Vancouver	5 00
3065	" 29.	Robert H. Grierson	3rd "	Collingwood, Ont.	Toronto	5 00
3066	" 29.	Daniel Brisbin	3rd "	Picton, Ont.	Kingston	5 20
3067	Feby. 26.	Herbert R. Stevens	4th "	Huntsville, Ont.	Toronto	5 00
3068	" 26.	Geo. Robt. McDonald	4th "	Owen Sound, Ont.	"	5 00
3069	" 26.	Arthur Godin	4th "	Sorel, Que	Sorel	5 00
3070	" 26.	Jos. A. Silverthorn	4th "	Midland, Ont.	Toronto	5 00
3071	" 26.	James G. Fisher	2nd "	Collingwood, Ont.	"	5 00
3072	" 26.	Albert Martin	Temporary	Gravenhurst, Ont.	Gravenhurst	2 00
3073	" 26.	Frank Krafue	"	Barrington, N.S.	Halifax	2 00
3074	" 26.	Robt. Francis Craig	"	Barrie, Ont.	Toronto	2 00
3075	March 7.	Wm. McCallum	4th Class.	Hamilton, Ont.	Toronto	5 00
3076	" 7.	Delbert Becker	4th "	Vancouver, B.C.	Vancouver	5 00
3077	" 7.	Chas. Edmund King	4th "	Hamilton, Ont.	Toronto	5 00
3078	" 7.	George M. Gerow	4th "	Picton, Ont.	Kingston	5 00
3079	" 7.	John N. Burke	4th "	Kingston, Ont	"	5 00
3080	" 7.	Frank Black.	4th "	Brockville, Ont.	"	5 00
3081	" 7.	Henry A. Leslie	4th "	Kingston, Ont.	"	5 00
3082	" 7.	John H. Talbot	4th "	Victoria, B.C.	Victoria	5 00
3083	" 7.	Thomas Finlin	4th "	Morton, Ont	Kingston	5 00
3084	" 7.	Wm. James Buckley.	4th "	Leith, Ont.	Toronto	5 00
3085	" 7.	Samuel Robert Roberts	3rd "	Victoria, B C.	Victoria	5 00
3086	" 7.	Jas. Alex. Scott	3rd "	Collingwood, Ont.	Toronto	5 00
3087	" 7.	Alexander Ross	3rd "	Victoria, B.C.	Victoria	5 00
3088	" 7.	Daniel A. Boyd	3rd "	Arrowhead, B.C	"	5 00
3089	" 7.	Arthur Jas. McCardie	3rd "	Vancouver, B.C.	Vancouver	5 00
3090	" 7.	Edward G. Newell.	3rd "	Toronto, Ont.	Toronto	5 00
3091	" 7.	George Wm. Clarkson	3rd "	"	"	5 00
3092	" 7.	John R. Davidson	2nd " U.K.	Brisbane, Australia	Victoria	5 00
3093	" 7.	Hedley R. Welch	2nd "	Oshawa, Ont.	Toronto	5 00
3094	" 7.	John H. Alexander	2nd "	Victoria, B.C.	Victoria	5 00
3095	" 7.	George Clark	Temporary	Morrisburg, Ont.	Kingston	2 00
3096	" 7.	Ronald F. Link	"	Gravenhurst, Ont.	Toronto	2 00
3097	" 19.	John K. Sutherland	2nd Class U.K.	Louisburg, N.S.	Halifax.	5 00
3098	" 19.	George N. Smith.	2nd "	Midland, Ont.	Toronto	5 00
3099	" 19.	George P. Fitzpatrick	4th "	Aylmer, Que.	Montreal	5 00
3100	" 19.	Alexander Barton	2nd "	Kingston, Ont.	Kingston	5 00
3101	" 19.	Henry Jansen	4th "	Barrie, Ont.	Toronto	5 00
3102	" 19.	Francis Mich. Tierney	2nd " U.K.	Dartmouth, N.S.	Halifax.	5 00
3103	" 19.	Henry D. Hornibrook.	4th "	Victoria, B.C.	Victoria	5 00
3104	" 19.	Paul Landry.	4th "	Sorel, Que.	Sorel	5 00
3105	" 19.	Arthur Ruel.	4th "	Village Bienville, Que.	Quebec	*
3106	" 19.	Norman A. Currie	1st " U.K.	Charlottetown, P.E.I.	St. John	5 00
3107	" 19.	George Noel.	2nd "	Luskville, Que.	Montreal	5 00
3108	April 8.	Charles Smith	Temporary.	Rat Portage, Ont.	Rat Portage	2 00
3109	" 8.	Edgar P. Stiang.	"	Sydney, C.B.	Halifax.	2 00
3110	" 8.	Walter D. Booker	"	Rat Portage, Ont.	Rat Portage	2 00
3111	" 8.	Geo. Edwin Scott.	"	Guysboro, N.S.	Halifax.	2 00
3112	" 8.	Arthur Seguin.	"	Hudson, Que.	Montreal	2 00
3113	" 8.	Frederic M. Young	"	Youngs Point, Ont.	Kingston	2 00
3114	" 8.	Andrew Lajeunesse	"	Peterboro, Ont.	"	2 00
3115	" 9.	Chas. Henry Clay	4th Class.	Vancouver, B.C.	Vancouver	*
3116	" 9.	Arthur Pelletier	4th "	Montreal, Que	Montreal	5 00
3117	" 9.	Jean Bilodeau	4th "	"	"	5 00
3118	" 9.	Jos. Louis Madden.	4th "	Victoria, B.C.	Victoria	5 00
3119	" 9.	Wm. John Poole.	Temporary.	Pooles Resort, Ont.	Kingston	2 00
3120	" 9.	George C. Webster.	1st Class U.K.	Halifax, N.S.	Halifax.	5 00
3121	" 9.	Arthur C. Rudland.	2nd " "	San Francisco, U.S.	Victoria	5 00

* Second examination.

SESSIONAL PAPER No. 21

List of Certificates of Competency granted to Engineers of Steamboats, &c.—*Con.*

Number of Certificate.	Date of Certificate.	Name.	Grade.	Address.	Where Examination was passed.	Fee.
	1902.					$ cts.
3122	April 9..	William Boomer	3rd Class	Vancouver, B.C.	Vancouver	5 00
3123	" 9..	Arthur Letendre	3rd "	Sorel, Que	Sorel	5 00
3124	" 17..	James Watt	4th "	Vancouver, B.C.	Vancouver	5 00
3125	" 17..	George Dugnid	4th "	"	"	5 00
3126	" 17..	Alexander Blakley	Temporary	Golden, B.C.	Victoria	2 00
3127	" 28..	John Thos Dowling	"	St. Andrews, N.B.	St. John	2 00
3128	" 28..	Frederic W. Richardson	"	Deer Island	"	2 00
3129	" 28..	Martin Boston	"	Apple River, N.S.	"	2 00
3130	" 28..	William E. Sproull	"	Pictou Landing, N.S.	Halifax	2 00
3131	" 28..	Arthur McCann	"	Wallace, N.S.	"	2 00
3132	" 28..	Emery Scott	"	Keewatin, Ont.	Rat Portage	2 00
3133	" 28..	Alfred McCall	"	Rat Portage, Ont.	"	2 00
3134	" 28..	James W. Brown	"	"	"	2 00
3135	" 29..	Joseph Guay	3rd Class	Village Bienville, Que.	Quebec	5 00
3136	" 29..	Joseph Chapdelaine	4th "	Sorel, Que	Sorel	5 00
3137	" 29..	Thomas K. Abra	3rd "	Vancouver, B.C	Vancouver	5 00
3138	" 29..	Wm. Joseph Campbell	3rd "	Pictou, N.S	Halifax	5 00
3139	" 29..	Wenceslas Chretien	4th "	Sorel, Que	Sorel	5 00
3140	" 29..	Harris L. Lockhard	3rd "	Hantsport, N.S.	Halifax	5 00
3141	" 29..	Rosario Casey	4th "	Village Bienville, Que.	Quebec	5 00
3142	" 29..	George Bourret	3rd "	Sorel, Que	Sorel	5 00
3143	" 29..	Charles C. Evans	2nd " U.K.	Montreal, Que	Quebec	5 00
3144	" 29..	Charles D. Cooke	1st " "	Louisburg, C.B.	Halifax	5 00
3145	" 29..	Henry F. McKay	1st " "	New Glasgow, N.S.	"	5 00
3146	May 5..	Henry A. Leslie	Temporary	Kingston, Ont.	Kingston	2 00
2147	" 5..	Wm. Burns	"	Rat Portage, Ont.	Rat Portage	2 00
3148	" 5..	John J. Bellefeuille	"	"	"	2 00
3149	" 5..	Alex. M. Innis	2nd Class	Parrsboro', N.S.	Halifax	5 00
3150	" 5..	Paul Bolduc	2nd "	Village Bienville, Que.	Quebec	5 00
3151	" 5..	Adelard Gendron	3rd "	Sorel, Que	Sorel	5 00
3152	" 5..	Wm. Burgoyne	Temporary	Fenelon Falls, Ont.	Kingston	2 00
3153	" 5..	Arthur Davis	"	Pooles Resort, Ont	"	2 00
3154	" 5..	Zaccheus White	"	Lakefield, Ont	"	2 00
3155	" 6..	Geo. Morris Beecher	"	Brockville, Ont.	Brockville	2 00
3156	" 15..	James Chas. Barry	"	Lefroy, Ont.	Toronto	2 00
3157	" 15..	Wm. Jas. McIntyre	"	Port Sydney, Ont.	"	2 00
3158	" 15..	Peter Geo. Cavanagh	"	Perth, Ont.	Montreal	2 00
3159	" 15..	John Edward Ball	"	Caesarea, Ont.	Lindsay	2 00
3160	" 23..	Joseph Trottier	2nd Class	Champlain, Que.	Quebec	5 00
3161	" 23..	John J. Coones	Temporary	Bridgenorth, Ont	Kingston	2 00
3162	" 23..	Alex. McLeod	3rd Class	Vancouver, B.C.	Vancouver	5 00
3163	" 23..	Henry Gaerdes	4th "	Victoria, B.C.	Victoria	5 00
3164	" 23..	John Moyes	4th "	Vancouver, B.C.	Vancouver	5 00
3165	" 23..	Germain Lippie	4th "	Sorel, Que	Sorel	5 00
3166	" 23..	James Petticrew	1st " U.K.	Victoria, B.C.	Victoria	5 00
3167	" 26..	Daniel O'Donnell	Temporary	Belleville, Ont.	Belleville	2 00
3168	" 29..	Isaac Jas. Boynton	"	Bobcaygeon, Ont.	"	2 00
3169	" 31..	Theophile Beaudette	"	Buckingham, Que.	Buckingham	2 00
3170	" 31..	Joseph Thibault	"	Val de Bois, Que.	Val de Bois	2 00
3171	June 3..	Alonzo W. Daball	"	Parry Sound, Ont.	Parry Sound	2 00
3172	" 4..	Arthur Poole	"	Selkirk, Man	Selkirk	2 00
3173	" 4..	Frank Newall	"	Halifax, N.S.	Halifax	2 00
3174	" 7..	Thos. W. Fultz	"	"	"	2 00
3175	" 7..	W. F. Brown	"	Winnipeg, Man.	Winnipeg	2 00
3176	" 23..	James H. Wilson	"	Fort Francis, Ont.	Fort Frances	2 00
3177	" 23..	Fredk. W. Coates	"	"	"	2 00
3177	" 26..	Joseph E. Bandock	"	Almaville, Que.	Almaville	2 00
3179	" 26..	Theophile Côté	"	Grandes Piles, Que.	Grandes Piles	2 00
3180	" 26..	Irénée Rivard	"	"	"	2 00
3181	" 26..	Edouard Rivard	"	"	"	2 00
3182	" 26..	André Donaldson	"	Peribonka, Que.	Roberval	2 00

APPENDIX No. 13.

REWARDS FOR SAVING LIFE.

Names and Designations of Persons.	Nature of Services rendered.	Date of Services rendered.	Description of Reward.
G. S. McDougall, master; M. McPhee, 1st mate; Wm. Lockerbie, 1st engineer; F. J. Davis 2nd mate; J. W. Davey, 2nd engineer; D. McIntyre, F. Smith, wheelmen; W. Collison, J. Barrett, lookouts; H. Day, P. Day, A. Sea, S. McLennan, J. Sutherland, W. Scott, sailors of C.P R. SS. *Athabasca*.	Rescuing crew from U. S. barge *Preston*.	June 29, 1901..	Gold watch from President of the United States, and silver jug from Dept. of M. and F. to master, a binocular glass to 1st mate, a gold medal to 1st engineer, and a silver medal each to the 2nd mate, 2nd engineer and men.
Oldney Watkins, master; H. Hilton, chief mate; J. Brooks, A.B.; W. O'Leary, A.B. and J. Boyle, A.B.of the SS. *City of Exeter*, of Bristol, England.	Rescuing crew of schooner *Clifton*, Windsor, N.S.	Jan. , 1902..	A binocular glass to master, a gold watch to the mate, and $10 to each of the men.
C. O. Wills, master; William Woodward, 1st officer; Carl Wicht, boatswain; J. Hellstrom, A.B.; O. Thiel, A.B.; J. Bjvonvick, A. B.; John Carmichael, A.B., of SS. *Garton*.	Rescuing crew of shipwrecked barque *Galatea*, of St. John, N.B.	Feb. 15, 1899..	A binocular glass to master, a gold watch to 1st officer, and $10 to each of the men.*
R. V. Bennett, 1st mate of SS *Ardova*, Liverpool, G.B.	Services rescuing crew of Norwegian barque *Clara*.	Jan. .., 1901..	Silver medal from Norwegian government, and award stamped on Master's Certificate No. 3,439.
M. G. Clark, lightkeeper and John Roberts, assistant.	Rescuing two Indians from drowning near Entrance Island, B.C.	July 10, 1901..	A binocular glass to each.
Philip Gallant, Summerside, P.E.I.	Rescuing two fishermen from drowning.	April, 1901..	A binocular glass.
Arthur Meisner, Thomas Meisner and Loran Meisner.	Rescuing three fishermen near Meisner's Island, Lunenburg, N.S.	Mar. 6, 1901..	$3 apiece.
Ernest Kinney, master; Chas. Kinney, 2nd mate; Harry Doucette, A. B.; H. McKinnon, A. B.; Walter Pershong, A.B.; Richard Lyons, A.B., and Robert French, A.B., seamen, of SS. *Prince Arthur*.	Rescuing crew of schooner *Waubeek*, N.B.	Oct. 10, 1900..	Binocular glass to master, a silver watch to 2nd mate, and $10 apiece to the men.
Albert Cheney, Lloyd Cheney and Arthur Cheney.	Rescuing crew of American schooner *Velma*, wrecked on Murr Ledges.	Oct. 17, 1900..	Gold watch, chain and charm to Albert Cheney, and a gold medal each to Lloyd and Arthur Cheney, from the President of the United States.

* The money was unclaimed.

APPENDIX No. 14.

REPORT OF CHAIRMAN OF BOARD OF EXAMINERS OF MASTERS AND MATES.

HALIFAX, N.S., November 5, 1902.

To the Deputy Minister of Marine and Fisheries, Ottawa.

SIR,—I have the honour to submit, for the information of the Honourable the Minister of Marine and Fisheries, the annual report of the proceedings of the Board of Examiners of Masters and Mates, from June 30, 1901, to June 30, 1902, the end of the fiscal year.

Examinations for candidates for certificates of competency, sea-going, were held as follows :—

At Halifax, four times ; at St. John, six times ; at Yarmouth, seven times, and at Quebec once, making eighteen times in all.

There were also eleven examinations held at Victoria, the papers and problems having been sent to the Chairman at Halifax for his inspection and confirmation.

At Halifax one application was made for a sea-going certificate of competency as master, and three for master coasting and inland waters; one sea-going and three masters for coasting and inland waters received certificates. Nine applications were made for sea-going certificates as mate and three for mates coasting and inland ; eight sea-going and three coasting and inland mates received certificates.

At St. John six applications were made for sea-going certificates of competency as master, and four for masters coasting and inland ; six sea-going masters and four masters for coasting and inland waters received certificates. Four applications were made for sea-going certificates as mate, and two for mates coasting and inland waters ; three sea-going and two coasting and inland mates received certificates.

At Yarmouth two applications were made for sea-going certificates of competency as master, and eight for mates' certificates ; and two masters and eight mates received certificates.

At Quebec one application was made for a certificate of competency as mate sea-going and was successful.

At Victoria three applications were made for sea-going certificates of competency as master, and eight for mates' certificate ; three masters and seven mates received certificates.

It can therefore be seen that twelve applications were made for masters' certificates of competency sea-going, and thirty for mates' during the year ; twelve masters and twenty-seven mates received certificates ; also seven applications for certificates as master competency, coasting and inland waters were made to the Board of Examiners, and five for mates' certificates : seven masters and five mates received certificates.

Two certificates of service were issued through the Halifax office for master coasting and one for mate, also one renewal certificate.

The total number of certificates issued by the Department of Marine and Fisheries during the fiscal year, including competency, service and renewal, upon application to the Board of Examiners at Halifax, was fifty-five, and fees to the amount of $476 were collected and deposited to the credit of the Receiver-General.

The fees collected by the examiner at Victoria are sent by him direct to the department and are not included in the above amount.

Amongst the applicants enumerated above some presented themselves a second time for examination, having previously failed to pass.

During the year the only examiners for officers in the foreign or oversea trade has been Captain James Gaudin, the agent for the department at Victoria, who examines them in seamanship and other matters.

The problems in navigation generally are forwarded by him to me, when, if satisfactory, the papers are transmitted to the department from this office.

At Halifax the examiner in seamanship, Captain David Hunter, has been incapacitated by illness since prior to the death of the late Chairman, Captain W. H. Smith, R.N.R.

At St. John, N.B., the vacancy caused by the death of Captain Wm. Thomas in November, 1899, has not been filled; consequently the whole examination for that port for foreign-going and coasting certificates still devolves on me.

During the past year Captain Alexander Cameron, holding an Imperial Board of Trade certificate of competency, as master ordinary, has been appointed examiner of candidates for masters' and mates' certificates for coasting, inland and minor inland waters.

I have the honour to be, sir,
Your obedient servant,

BLOOMFIELD DOUGLAS, R.N.R.,
Acting Chairman.

STATEMENT showing the number of applicants examined by the Board of Examiners for Certificates of Competency, sea-going and coasting, at the ports of Halifax, St. John, Yarmouth and Quebec, for the year ending June 30, 1902.

Port.	Month.	Applicants.		Passed.		Failed.		Fees.
		Masters.	Mates.	Masters.	Mates.	Masters.	Mates.	
								$ cts.
Halifax	August	1 C	2 F 1 C	1 C	5 F 1 C			61 00
St. John	September	3 F 1 C		3 F 1 C				60 00
Yarmouth	"	1 F						15 00
"	October		2 F		2 F			16 00
St. John	November	1 F	1 F	1 F			1 F	23 00
Yarmouth	"		1 F		1 F			8 00
"	December		2 F		2 F			16 00
Halifax	"	1 F	2 F	1 F	2 F			31 00
St. John	January		1 F		1 F			8 00
Yarmouth	"		2 F		2 F			16 00
Quebec	"		1 F		1 F			8 00
St. John	February	2 F 1 C		2 F 1 C				45 00
Yarmouth	"	1 F		1 F				15 00
Halifax	March	1 C	1 C	1 C	1 C			21 00
St. John	April	1 C	1 F 1 C	1 C	1 F 1 C			29 00
Halifax	"	1 C	1 F 1 C	1 C	1 C		1 F	29 00
"	May		1 F		1 F			
St. John	"	2 C	1 F 1 C	2 C	1 F 1 C			30 00
Yarmouth	"		1 F		1 F			8 00
Total.								439 00

Abbreviations.—{ "F"—Foreign or sea-going.
{ "C"—Coasting (or inland).

N.B.—Some discrepancy may appear to exist between the amount of fees collected and the number of candidates examined, but this can be explained by the fact that in some cases the fee has been paid by an applicant, but his examination has not been completed within the fiscal year.

BLOOMFIELD DOUGLAS, R.N.R.,
Acting Chairman.

APPENDIX No. 15.

RECORD of Live Stock Shipped from Port of Montreal during November, 1902.

No.	Date.	Steamer.	Destination.	Sheep.	Cattle.	Horses.	Hay for Feed.	Grain for Feed.	Number of Men.
	1902.								
182	Nov. 1.	Concordia	Glasgow		540	36			22
183	" 1.	Sarmatian	"		240				10
184	" 4.	Manxman	Liverpool		530				21
185	" 4.	Cervona	London	240	458				19
186	" 5.	Loango	"	876	98				8
187	" 6.	Pomeranian	"		403	3			16
188	" 7.	Alcides	Glasgow		273				11
189	" 7.	Montcalm	Bristol	480	251				13
190	" 8.	Corinthian	Liverpool		542				22
191	" 8.	Ashanti	London	758	257				14
192	" 11.	Rosarian	Glasgow		242				10
193	" 11.	Hurona	London		471				19
194	" 15.	Lake Champlain	Liverpool		533				21
195	" 16.	Monte Videan	London		239				10
196	" 16.	Pretorian	Liverpool		420				17
197	" 16.	Man Importer	Manchester		421				17
198	" 16.	Bellona	Liverpool		260				10
199	" 17.	Mont agle	Bristol	508	250				12
200	" 17.	Ottoman	Liverpool	798	820				36
201	" 18.	Kastalia	Glasgow		307	35			14
202	" 19.	Lycia	London	166	259				10
203	" 20.	Kildona	"	305	262				12
204	" 21.	Roman	Liverpool	842	704				32
205	" 21.	Orcadian	Glasgow		261				10
206	" 21.	Lake Ontario	Liverpool		328				9
207	" 22.	Tritonia	Glasgow	484	297				14
208	" 23.	Sicilian	"	298	299	17			13
209	" 23.	Iona	London		479				19
210	" 25.	Man Commerce	Manchester		391				16
211	" 25.	Montfort	London	1,205	589				29
212	" 26.	Marina	Glasgow		300				12
213	" 26.	Man Shipper	Manchester		380				11
214	" 27.	Monterey	Bristol	309	254				12
		Total for month		7,269	12,348	91	3,862,165	757,386	521
		Previously reported		38,561	64,808	458	18,416,543	4,261,547	2,794
		Total for season 1902		45,830	77,156	549	22,278,708	5,018,933	3,315

TOTAL Live Stock Shipments from the year 1892, were as follows:—

No.	——	Sheep.	Cattle.	Horses.
214	Season of 1901	54,538	73,791	1,338
248	" 1900	34,838	92,180	2,833
239	" 1899	58,277	81,804	4,739
298	" 1898	34,991	99,189	5,283
304	" 1897	60,638	117,247	10,051
242	" 1896	76,520	96,448	10,421
224	" 1895	210,607	94,972	13,303
229	" 1894	139,780	88,635	5,623
235	" 1893	3,743	83,322	16,666
260	" 1892	15,914	98,731	1,739

POPE & MORGAN,
Inspectors.

MONTREAL, November 27, 1902.

APPENDIX No. 15.

TOTAL Live Stock Shipments for 1902.

From where Shipped.	Sheep.	Cattle, Fat.	Horses.	Hay for Feed.	Grain for Feed.	Number of Men.
				Lbs.	Lbs.	
Montreal	45,830	77,156	549	22,278,708	5,018,933	3,315
St. John	6,858	11,614	6,374	3,357,715	898,474	947
Charlottetown	3,733	195		164,000	42,296	
Halifax		162		43,800	12,474	27
Quebec	3,407	3,661				
Total	59,828	92,788	6,923	25,844,223	5,972,177	4,289

Supplement to the Thirty-fifth Annual Report of the Department of Marine and Fisheries
MARINE

FOURTH ANNUAL REPORT

OF THE

GEOGRAPHIC BOARD OF CANADA

FOR THE YEAR ENDING 30TH JUNE

1902

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY S. E. DAWSON, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1902

[No. 21*a*—1903.]

To the Hon. JAMES SUTHERLAND,
Minister of Marine and Fisheries.

The undersigned has the honour to submit the fourth annual report of the Geographic Board of Canada, containing the decisions of the Board for the year ending June 30, 1902.

The publication of the last report having been unavoidably delayed, and the edition printed being an unusually large one, it was not deemed necessary to consolidate the names again this year, but to publish at once the decisions rendered during the past year; the next consolidation of the names, and the additional index under Provinces and Territories, referred to in the last report, to be made after June next for the fifth annual report.

Six thousand three hundred names, for the new map of Canada, which was being prepared in the Department of the Interior, were submitted to the Board. As it was desirable to avoid delay in the publication of the map, and as an examination of the names showed that most of them were undisputed, the Board decided to approve them provisionally, except 427, which were reserved for the usual action, and upon which decisions were rendered during the year, and they comprise the greater part of the following list.

During the year twelve meetings of the Board have been held.

A change in the organization of the Board has taken place, the Government of the Province of Ontario having nominated Mr. Aubrey White, Assistant Commissioner of Crown Lands, to be a member of the Board for Ontario, under the provisions of the Order in Council, dated December 14, 1899.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries,
Chairman of the Board.

June 30, 1902.

DECISIONS.

1st JULY, 1901, TO 30th JUNE, 1902.

In the following list of names, those approved by the Board are printed in small capitals. Names, and different forms of the same name, which have been discarded are also given; the former being printed in *italics* and alphabetically arranged with the adopted names, but the latter, when nearly like the adopted forms, are not repeated.

A

Achigo. See Sachigo.

ACTONVALE; town, Bagot county, Que. (Not Acton Vale.)

ALBERT; port, Huron county, N.B.

ALBERT; town, Albert county, N.B. (Not Hopewell Corner.)

Anesty. See Anstey.

ANNE; point, opposite Massasauga point, Hastings county, Ont.

ANSE AU VALLON; village, Gaspé county, Que. (Not L'Anse-à-Valleau.)

ANSTEY; arm, creek, lake, and river, Shuswap lake, B.C. (Not Anesty.)

Ardoise. See L'Ardoise.

Arignole. See Orignal.

Ark-e-Leenik. See Thelon.

ARMSTRONG; P.O. in northeastern Assiniboia. (Not Armstrong Lake.)

Arrowwood. See Rosebud.

ASCOT; P.O. in the township of Ascot, Sherbrooke county, Que. (Not Ascot Corner.)

Askow. See Bow.

ASPY; bay and river, Victoria county, N.S. (Not Aspee.)

ATHABASKA; lake, river, and territorial district, northwest Canada. (Not Athabasca.)

ATTAWAPISKAT; lake and river, emptying into James bay, Keewatin. (Not At-tah-wah-pis-kat nor Attawapiscat.)

AUSABLE; river, emptying into lake Huron, south of Goderich, Ont. (Not aux Sables nor Sable.)

B

Bachewanaung. See Batchawana.

BACKS; river, flowing northeasterly through Keewatin and Mackenzie districts, into the Arctic ocean.
(Not Thleweechodezeth nor Great Fish.)

Back's Western. See Western.

Bad Throat. See Manigotagan.

BARHAM; mountain, west of Surprise lake, Cassiar, B.C.

BARNABY; railway station, river, and village, Northumberland county, N.B. (Not Barnaby River P.O.)

BARNEY; river, Pictou county, N.S. (Not Barney's.)

BARNEY RIVER; P. O., Pictou county, N.S. (Not Barney's River.)

BARRETT; reef, southeast of Milton bank, Bruce county, Ont.

BARTIBOG; P.O., river, and railway station, Gloucester county, N.B. (Not Bartibogue.)

Bason. See Bouleau.

Basquia. See Pasquia.

BASTION; island, in southern part of Atlin lake, B.C.

BATCHAWANA; bay, island, river, and village, Algoma district, Ont. (Not Bachewanaung nor Batchewana.)

BATTLE; lake, on Battle river, Alta. (Not Battle River lake.)

BAYFIELD; river and town, Huron county, Ont.

BAY ST. PAUL; town, Charlevoix county, Que. (Not St. Paul's Bay.)

Bear. See Great Bear.

Beaver. See McFarlane.

BEAVERHILL; creek and lake, east of Edmonton, Alta. (Not Beaver.)

BECAGUIMEC; lake and river, Carleton and York counties, N.B. (Not Beccaguimec nor Peckagomique.)

BEE; peak, east of Taku arm, Cassiar, B.C.

BEECHRIDGE; P.O. and settlement, Argenteuil county, Que. (Not Beech Ridge.)

BEECHWOOD; village and railway station, Carleton county, N.B. (Not Bumfrau).

BELANGER; river, empties into lake Winnipeg, Keewatin. (Not Black nor Little Black.)

BELCHER; reef, extending north from MacGregor point, Bruce county, Ont.

BELLIVEAU; cove and village, Digby county, N.S. (Not Belliveau Cove nor Belliveaux Cove.)

BERENS; H.B. Co's post, island, and river, east side of Lake Winnipeg, Man. (Not Beren's.)

BERRYS MILLS; post village and railway station, Westmorland county, N.B. (Not Berry's Mills.)

BERSIMIS; point, river, and village, Saguenay county, Que. (Not Betsiamits.)

Betsiamits. See Bersimis.

BICHE, Lac la; lake, northwestern Alberta. (Not Red Deer.)

Big. See Dumoine.

Big. See Merigomish.

Big Cutarm. See Cutarm.

Big Obashing. See Obashing.

Big Port l'Hebert. See Port Hebert.

Big Sturgeon. See Torch.

Bird. See Oiseau.

BIRDS HILL; post village and railway station, northeast of Winnipeg, Man. (Not Bird's Hill.)

Black. See Belanger.

BLACKS; point, south of Goderich, Huron county, Ont.

BLANCHARD; mountain, southeast of Pitt lake, Westminster district, B.C. (Not Golden Ears.)

BLOODVEIN; river, emptying into lake Winnipeg at the "Narrows," Man. (Not Blood-vein.)

Blue. See Harris.

BOOFUS; mountain, north of Gladys lake, Cassiar, B.C.

BOULARDERIE; island, Victoria county, N.S. (Not Boulardrie nor Boulardarie.)

BOULEAU; river, Saguenay county, Que. (Not Bason.)

BOW; river, southern Alberta. (Not Askow.)

BOYER; reef, east of Belcher reef, Bruce county, Ont.

BRAS D'OR; lake, Richmond county, N.S. (Not Great Bras d'Or.)

BRIER; island, at entrance to St. Mary bay, Digby county, N.S. (Not Bryer.)

Bristol. See Shemogue.

Brown Dome. See Marble Dome.

Bryer. See Brier.

BUFFALO; lake, south of Battle river, Alta. (Not Bull.)

BUFFALO POUND; lake, north of Moosejaw, Assa. (Not Highpound.)

Bull. See Buffalo.

Bumfrau. See Beechwood.

C

CAIN; river, tributary to Miramichi river, Northumberland county, N.B. (Not Cain's nor Kains.)

CAIN RIVER; post village, Northumberland county, N.B. (Not Cain's river.)

CALEDONIA; village, Guysborough county, N.S. (Not Middle Caledonia.)

CAMERON; mountains, south of Taku arm, Cassiar, B.C.

CAMPBELLTON; town, Restigouche county, N.B. (Not Campbell-town.)

CAMPOBELLO; island, northwest of Grand Manan island, Charlotte county, N.B. (Not Campo Bello.)

Canouse. See Kanus.

CANTIN; shoal, southwest of St. Joseph, Huron county, Ont.

CARAQUET; bay, river, and village, Gloucester county, N.B. (Not Caraquette.)

Caribou. See Mudjatik.

CARIBOU MINES; post office, Halifax county, N.S. (Not Caribou Gold Mines.)

CARTER; mountain peak, east of Atlin lake, B.C.

CARYS SWAN NEST; cape, Coats island, Hudson bay, Keewatin. (Not Cary's Swan Nest.)

Cascade. See Coast.

CASCUMPEQUE; bay, Prince county, P.E.I. (Not Cascumpec nor Holland.)

CAT; lake and river, tributary to lake St. Joseph, Keewatin. (Not Cat Lake river.)

Cathawhachaga. See Kathawachaga.

CAUSAPSCAL; river and village, Matane county, Que. (Not Casupscull nor Cosupscoult.)

Chaloupe. See Shallop.

CHARLO; village, Guysborough county, N.S. (Not Charlo Cove nor Charlo's Cove.)

CHAT; cape and river, Gaspé county, Que. (Not Chatte.)

CHEMUNG; lake and P.O., Peterborough county, Ont. (Not Chemong nor Shemong.)

CHETICAMP; island, river, and town, Inverness county, N.S. (Not Chetican.)

Chief Mountain. See Waterton.

CHIGNECTO; bay, between Nova Scotia and New Brunswick. (Not Chignecto channel.)

CHILAKO; river, tributary to Nechaco river, Cariboo, B.C. (Not Chilacco nor Mud.)

CHILCOTIN; lake, river, and village, Cariboo and Lillooet, B.C.

CHIP; lake, west of St. Ann, northern Alberta. (Not Dirt nor Lobstick.)

CHIPEWYAN; H. B. Co's post, and Mission station, near outlet of Athakaska lake, also lake to southwest of Athabaska lake, Atha. (Not Chippawyan nor Chippewyan.)

CHUTE COVE; village, Annapolis county, N.S. (Not Chute's Cove.)

CLARK; point and reef, Bruce county, Ont. (Not Pine Point nor Clark Point reef.)

CLAY; brook and lake, Villeneuve township, Ottawa county, Que. (Not Clay Brook lake.)

Coac. See Koak.

COAST; range of mountains, in western part of British Columbia. (Not Cascade.)

COCAGNE; harbour, island, river, and town, Kent county, N.B. (Not Cocaigne.)

COEHILL; P.O., and railway station, Hastings county Ont. (Not Coe Hill nor Coe Hill Mines.)

Commandant, Lac du. See Papineau.

COMMISSIONERS; lake, Lake St. John county, Que. (Not Commissioner.)

CONN MILLS; village, Cumberland county, N.S. (Not Conn's Mills.)

CONSOLATION; creek, flows into Gladys lake, Cassiar, B.C.

COPPER; island, in the southern part of Atlin lake, B.C.

Cosupscoult. See Causapscal.

COUDRES; island, Temiscouata county, Que.

CUMBERLAND; lake, eastern Saskatchewan. (Not Pine Island lake.)

CUTARM: river, tributary to Qu'Appelle river, eastern Assiniboia. (Not Big Cutarm creek.)

D

DACK; spit, west of Port Elgin, Bruce county, Ont.

DAHADINNI: river, tributary to Mackenzie river, Mackenzie. (Not Dahadinee nor Dahadinne.)

DAUPHIN; river, emptying into Sturgeon bay, lake Winnipeg, Man. (Not Little Saskatchewan.)

DAWSONVILLE; town, Restigouche county, N.B. (Not Dawsonvale.)

DEADMAN'S; harbour and head, Charlotte county, N.B. (Not Deadman's.)

DEBERT; river and village, Colchester county, N.S. (Not DeBert.)

DELAP COVE; town, Annapolis county, N.S. (Not Delap's Cove.)

DENYS; river, Inverness county, N.S. (Not Dennis.)

Despair. See Espoir.

DEVILS HEAD; mountain, in the Rocky Mountains park, Alberta. (Not Devil's Head.)

Devil's Pine. See Ghostpine.

Dirt. See Chip.

DIXIE; lake and mountain, east of Atlin lake, Cassiar, B.C.

Doobaunt. See Dubawnt.

DORÉ, Baie du: bay, Bruce county, Ont.

D'OR; cape, Cumberland county, N.S. (Not Dore nor D'Ore.)

DOUGLAS; point, Bruce county, Ont.

DRIEDMEAT; hill and lake, on Battle river, eastern Alberta. (Not Dried Meat.)

DUBAWNT; lake and river, Keewatin and Mackenzie districts. (Not Doobaunt.)

Duck River North. See North Duck.

Duck River South. See South Duck.

DUMOINE; lake and river, Pontiac county, Que. (Not Du Moine, Big, nor Grand.)

DUNCAN; lake, north of Kootenay lake, B.C. (Not Upper Kootanie.)

E

EAST; river, Bonaventure county, Que. (Not East Port Daniel river.)

EAST; river, Pictou county, N.S. (Not East River of Pictou.)

EAST ARROWWOOD; river, tributary to Bow river, Alta. (Not East Arrow Wood.)

East Port Daniel river. See East.

East Souris. See Souris.

EBB-AND-FLOW; lake, west of the narrows of lake Manitoba, Man. (Not Ebb and Flow.)

EDMUND; mountain, northwest of Surprise lake, Cassiar, B.C.

EDWARD; point, at the entrance to St. Clair river, Lambton county, Ont.

Eighteen-mile. See Stirling.

EKWAN: river, flows into James bay, Keewatin. (Not Equan.)

ENRAGE, Cape: a headland on Chignecto bay, N.B. (Not Enragé.)

Equan. See Ekwan.

ESKIMO; bay, islands, and river, west of Belleisle strait, Que. (Not Esquimaux.)

ESKIMO: island, one of the Mingan group of islands, Saguenay county, Que. (Not Esquimaux.)

ESPOIR, de; cape, at the entrance to Chaleur bay, Gaspé county, Que. (Not Despair.)

Etang. See L'Etang.

Etsi-kom. See Etzikom.

ETZIKOM: coulée, north of Milk river, southern Alberta. (Not Etsi-kom.)

EWING; mountain, west of Gladys lake, Cassiar, B.C.

F

FAIRY; lake, Annapolis county, N.S. (Not Keejim-Kujic.)

Fall. See Tortue,

FARNSWORTH; mountain, east of O'Donnel river, Cassiar, B.C.

FLOWERPOT; island, east of Cove island, at entrance to Georgian bay, Ont. (Not Flower Pot.)

FOURCHU; harbour, Cape Breton county, N.S. (Not Fourché nor Fourchou.)

FRAMBOISE; village, Richmond county, N.S. (Not Frambois.)

FRENCHMAN; river, southern Assiniboia. (Not White Mud.)

G

GATINEAU POINT: village, at the mouth of Gatineau river, Wright county, Que.

GAULEY; bay, northeast of Greenough point, Bruce county, Ont.

GEORGE; bay and cape, Northumberland strait, Antigonish county, N.S. (Not St. George.)

GHOSTPINE; creek, tributary to Red Deer river, Alta. (Not Devil's Pine.)

GLENALLAN; village, Wellington county, Ont. (Not Glen Allan.)

GLENHURON; village, Simcoe county, Ont. (Not Glen Huron.)

GODBOUT; river, Saguenay county, Que. (Not Godbret nor Goodbout.)

GODERICH: town, Huron county, Ont.

GODS MERCY, Bay of; Southampton island, Hudson bay, Keewatin.

Golden Ears. See Blanchard.

GOODWIN; creek, flows east into Teslin lake, Cassiar, B.C.

Goose. See Grey Goose.

GOOSEHUNTING; creek, tributary to Carrot river, Sask. (Not Maple river.)

GOUGH; lake, south of Battle river, Alta.

GOULD DOME; mountain, Rocky mountains, southwestern Alberta. (Not Gould's Dome.)

Gounamitz. See Gunamitz.

GRANDE ANSE; bay, Gaspé county, Que. (Not Grand Anse.)

GRANDE ANSE; post village, Gloucester county, N. B. (Not Grand Anse.)

GRAND ETANG; town, Inverness county, N.S. (Not Grande Etang.

GRAHAM; creek and inlet, west of Atlin lake, B.C. (Not Takn inlet.)

Grand. See Dumoine.

Grand Lac du Commissaires. See Thirty-one-mile.

Grand Lake Jacques Cartier. See Jacques Cartier.

Great Bras d'Or. See Bras d'Or.

GREAT BEAR; river, flowing out of Great Bear lake, Mackenzie. (Not Bear nor Great Bear Lake river.)

Great Fish. See Backs.

Great Shemogue. See Shemogue.

Great Tusket. See Tusket.

GREENFIELD; shoal, south of Turning island, at entrance to Georgian bay, Ont.

GREY GOOSE; island, opposite the mouth of Big river, James bay, Ungava. (Not Goose.)

Groswater. See Melville.

GUNAMITZ; river, tributary to Restigouche river, N.B. (Not Gounamitz, nor Little Fork.)

GUNN; point, south of Douglas point, Bruce county, Ont.

GUYSBOROUGH; county and town, N.S. (Not Guysboro.)

H

Habitants. See Inhabitants.

HACKETT COVE; village, Halifax county, N.S. (Not Hackett's Cove.)

HA HA; bay, lake, and river, Chicoutimi county, Que. (Not Bay Ha Ha, nor Baie des Ha Ha.)

HALCRO; mountain peak, east shore of Atlin lake, B.C.

HALL; lake and river, west of Teslin lake, in B. C. and Yukon. (Not North river.)

Hanging Hide. See Leather.

HARRIS; point, Lambton county, Ont. (Not Blue.)

HAYES; river, southeast of Nelson river, Keewatin. (Not Hay's, Hill, Steel, nor Trout.) This name is now applied to the whole river from the source of the Echimamish to Hudson bay.

Head of Jordan river. See Jordan river.

Head of St. Peter's Bay. See St. Peter.

Hemlock. See Mackay.

Highpound. See Buffalo Pound.

HIGHVIEW; P.O. in eastern Assiniboia. (Not High View.)

Hill. See Hayes.

HILLFARM; P.O. in eastern Assiniboia. (Not Hill Farm.)

HILLHEAD; village, Argenteuil county, Que. (Not Hill Head.)

HIPPA; island, west of Graham island, Pacific coast, B.C. (Not Nesto.)

HITCHCOCK; creek, flows east into Teslin lake, Cassiar, B.C.

Hole. See Wanipigow.

Holland. See Cascumpeque.

HOME; islands, Coronation gulf, Mackenzie. (Not Sir E. Home's.)

Hopewell Corner. See Albert.

HOPKINS; bay and point, east of Baptist island, Bruce county, Ont.

HORTON POINT, north of Kincardine, Bruce county, Ont.

HUBBARD COVE; village, Halifax county, N.S. (Not Hubbard's Cove.)

HUNS VALLEY; village, Macdonald county, Man. (Not Hun's Valley.)

I

ICELANDIC; river, flowing into Lake Winnipeg, Man. (Not Icelanders.)

Iles de Bois. See Morris.

INDIAN; brook, flowing into St. Ann bay, Victoria county, N.S.

INGONISH; bay, river, and town, Victoria county, N.S. (Not Inganish nor Niganishe.)

Ingraham. See Louis.

INHABITANTS; river, Richmond county, N.S. (Not Habitants.)

INVERHURON; bay, south of Douglas point, Bruce county, Ont.

Ipperwash. See Kettle.

ISAAC HARBOUR; town, Guysborough county, N.S. (Not Isaac's Harbour.)

ISHIMANIKUAGAN; lake, Saguenay county, Que. (Not Ichimanicnagan nor Ishimanicougan.)

Island. See Isle.

ISLE; lake, west of St. Ann, northern Alberta. (Not Island.)

J

JACKHEAD; island, lake, and river, north of Fisher bay, lake Winnipeg, Man. (Not Jack-Head.)

JACOB; island, at entrance to Rupert bay, James bay, Ungava. (Not Wood.)

JACQUES CARTIER; lake, Montmorency county, Que. (Not Grand Lake Jacques Cartier.)

James Ross. See Ross.

JOGGINS; village, Cumberland county, N.S. (Not Joggin Mines, South Joggins, nor South Joggings.)

JOHN; river, Pictou county, N.S., and River John, P.O.

JOHNSON; range of mountains, between Atlin lake and O'Donnel river, B.C.

JOLICŒUR; village, Westmorland county, N.B. (Not Jolicure.)

JOLI HEAD; headland, Queens county, N.B. (Not Jolie Head.)

JORDAN RIVER; town, Shelburne county, N.S. (Not Head of Jordan River.)

JUMPING DEER; creek, tributary to Qu'Appelle river, eastern Assiniboia. (Not Jumpingdeer.)

JUPITER; river, south side of Anticosti island, Que. (Not Observation.)

Jupiter. See Shallop.

K

Kains. See Cain.

Kajoualwang. See Najwalwank.

KAMINISTIKWIA; river and railway station, Thunder Bay district, Ont. (Not Kaministiquia.)

KANUS; river, tributary to St. Croix river, Charlotte county, N.B. (Not Canous nor Canouse.)

KAPISKAU; river, north of Albany river, Keewatin. (Not Ka-pis-cow nor Kaypiscow.)

KAPOSVAR; creek, tributary to Qu'Appelle river, eastern Assiniboia. (Not Little Cutarm.)

Karmutsen; See Nimpkish.

KATHAWACHAGA; lake, north of Coronation gulf, Mackenzie. (Not Cathawhachaga.)

KATINA; creek, tributary to Silver Salmon river, Cassiar, B. C.

Kawawiagamak. See Wawiag.

Kaypiscow. See Kapiskau.

KEDGWICK; river. Restigouche county, N.B. (Not Kedgewick nor Quatawamkedgewick.)

Keejim-Kujic. See Fairy.

Keepawa. See Kipawa.

KEMPT; lake, St Maurice county, Que. (Not Wabaskoutyunk.)

KEMPTOWN; village, Colchester county, N. S. (Not Kempt Town.)

KENEMICH; river, emptying into lake Melville, Ashuanipi district, Que. (Not Kenemichic.)

KETTLE; point, south of Goderich, Lambton county, Ont. (Not Ipperwash.)

KETTLE; reef, extending north from Kettle point, Lambton county, Ont.

KINCARDINE; town, Bruce county, Ont.

Kingston. See Rexton.

KINONGE; river, Petite Nation seigniory, Labelle county, Que. (Not Salmon.)

KINTAIL; village, south of Clark point, Huron county, Ont.

KIPAWA; lake and river, Pontiac county, Que. (Not Keepawa nor Kippewa.)

KIRK FERRY; village, Hull township, Wright county, Que. (Not Kirk's Ferry.)

Kla-anch. See Nimpkish.

KLATSÁ; river, tributary to Frances river, Yukon. (Not Klatsatooa.)

KNEEHILL; P. O. east of Innisfail station, Alta. (Not Knee Hill Valley.)

KNEEHILLS; creek, tributary to Red Deer river, Alta. (Not Knee Hills.)

KOAK; islands and stream, St. John river. York county, N.B. (Not Coac nor Coak.)

Kootenai. See Waterton.

KWADACHA; river, tributary to Finlay river, Cariboo, B.C. (Not Quadacha nor Quaneca.)

L

LAHAVE; island and river, Lunenburg county, N. S. (Not La Have nor Le Havre.)

Lake Megantic. See Megantic.

LANIM; point, west of Dalhousie, Restigouche county, N.B. (Not La Lime, nor La Nim, nor Le Nim.)

LAPÊCHE; lake, Pontiac county, Que.

LARDEAU; mining division, river tributary to Duncan river, and town on N.E. arm of Upper Arrow Lake, B.C. (Not Lardo.)

L'ARDOISE; village, Richmond county, N.S. (Not Ardoise.

LARIVIERE; railway station and village, Lisgar county, Man. (Not La Riviere.)

LAURIE; range of mountains, west of O'Donnel river, Cassiar, B.C.

LEATHER; river, tributary to Carrot river, Sask. (Not Hanging Hide.)

LEE; creek, tributary to St. Mary river, southern Alberta. (Not Lee's.)

Le Nim. See Lanim.

LEONARD; mountain, west of Surprise lake, Cassiar, B.C.

L'ETANG; harbour, river, and village, Charlotte county, N.B. (Not Etang nor Letang.)

L'Étete. See Letite.

LETITE; passage and village, Charlotte county, N.B. (Not L'Etete nor Letete.)

Lewis. See Louis.

LINA; range of mountains, east of Atlin lake, B.C.

Little Black. See Belanger.

Little Cutarm. See Kaposvar.

LITTLE BOW; river, tributary to Belly river, Alta. (Not Small.)

Little Fork. See Gunamitz.

Little Magog. See Magog.

Little Mecattina. See Mekattina.

LITTLE MUSQUODOBOIT; village, Halifax county, N.S. (Not Little River Musquodoboit.)

Little Natashquan. See Natashkwan.

Little River Musquodoboit. See Little Musquodoboit.

Little Sachigo. See Oponask.

Little Saskatchewan. See Dauphin.

Lobstick. See Chip.

LODGE; creek, in southwestern Assiniboia. (Not Medicine Lodge.)

LOGIE; rock, west of McNab point, Bruce county, Ont.

LORETTE; parish, railway station, and village, southeast of Winnipeg, Man. (Not Loretto.)

LOSCOMBE; reef, north of Macpherson point, Bruce county, Ont.

LOUIS; port, Graham island, Queen Charlotte islands, B.C. (Not Ingraham nor Lewis.)

LOUTRE, Harbour de; harbour on the west side of Campobello island, N.S. (Not Harbour de Lute.)

M

MCADAM; railway station and village, York county, N.B. (Not Macadam nor McAdam Junction.)

MCCALLUM; mountains, east of Atlin lake, B.C.

MCCOY; head, east of Thompson cove, St. John county, N.B. (Not McCoy's.)

MCDONALD; lake, east of Atlin lake, B.C.

MACE; bay, Charlotte county, N.B. (Not Mace's.)

MCELHINNEY; shoal, north of Flowerpot island, Georgian bay, Ont. (Not McElhinney's.)

MCFARLANE; river, flows into south side of Athabaska lake, Athabaska. (Not Beaver or Grand Rapid.)

MACGREGOR; point, west of Port Elgin, Bruce county, Ont.

MCINTOSH; mountain, east of Atlin lake, Cassiar, B.C.

MACKAY; lake, Gloucester township, Carleton county, Ont. (Not Hemlock.)

MCLAY; mountain, east of Surprise lake, Cassiar, B.C.

MCMASTER; mountain, east of O'Donnel river, Cassiar, B.C.

MCNUTT; island, Shelburne harbour, N.S. (Not McNutt's.)

MACPHERSON; point, northeast of Douglas point, Bruce county, Ont.

MCRAE; point, south of Douglas point, Bruce county, Ont.

Macquereau. See Maquereau.

Maduxnakeag. See Meduxnekeag.

MAGANASIBI; river, tributary to Ottawa river, Pontiac county, Que. (Not Maganacipi nor Maganasipi.)

MAGANATAWAN; P.O. and river, Parry Sound district, Ont. (Not Magnetawan nor Maganetawan.)

Magnetawan. See Maganatawan.

MAGOG; lake and river, tributary to St. Francis river, Sherbrooke and Stanstead counties, Que. (Not Little Magog lake.)

MAITLAND; river, emptying into lake Huron at Goderich, Huron county, Ont.

MALCOLM; reef, between Boyer reef and Port Elgin, Bruce county, Ont.

MALPEQUE; bay, Prince County, P.E.I. (Not Richmond.)

Manicouagan. See Manikuagan.

Manicuagan. See Manikuagan.

MANIGOTAGAN; lake and river, east of lake Winnipeg, Man. (Not Bad Throat river, Muskrat lake nor Rat Portage lake.)

MANIKUAGAN; point and river, Saguenay county, Que. (Not Manicouagan nor Manicuagan.)

MANITOWANING; bay and village, Algoma district, Ont. (Not Manitouaning.)

Maple. See Goosehunting.

MAQUEREAU; point, Gaspé county, Que. (Not Macquereau.)

MARBLE DOME; mountain, south of Gladys lake, Cassiar, B.C. (Not Brown Dome.)

MARGAREE; town, Inverness county, N.S. (Not Margaree Harbour.)

MARTIMOKI; lake, Saguenay county, Que. (Not Martimokinipau.)

MASCAREEN; peninsula and village, Charlotte county, N.B. (Not Mascarene nor Mascarren.)

MATAPEDIA; lake, river, and town, Matane and Bonaventure counties, Que. (Not Metapedia.)

MAUGER; beach, at entrance to Halifax harbour, N.S. (Not Meagher.)

Meagher. See Mauger.

Mecatina. See Mekattina.

Medicine Lodge. See Lodge.

MEDUXNEKEAG; river, tributary to St. John river, Carleton county, N.B. (Not Maduxnakeag nor Meduxnakeag.)

MEDWAY; seaport town, Queens county, N.S. (Not Port Medway nor Port Metway.)

MEGANTIC; lake and village, Lake Megantic county, Que. (Not Lake Megantic village.)

MEKINAK; lake, river, and township, Champlain county, Que. (Not Mekinac.)

MEKATTINA; cape, islands, and river, Saguenay county, Que. (Not Mecatina, nor Little Mecattina river.)

MELVILLE; lake, an expansion of Hamilton inlet, Ashuanipi district, Que. (Not Groswater bay.)

MENESATUNG; park, north of Goderich, Huron county, Ont.

MERIGOMISH; island and village, Pictou county, N.S. (Not Big island nor Merigomishe village.)

Metaghan. See Meteghan.

Metapedia. See Matapedia.

METEGHAN; river and village, Digby county, N.S. (Not Metaghan.)

METEGHAN STATION; P. O., Digby county, N.S. (Not Metaghan.)

METIS; lake, point, river, and village, Matane county, Que. (Not Mitis nor Great Metis.)

MICHIPICOTEN; harbour, island, river, and village, L. Superior, Ont. (Not Michipicoton.)

MIDDLE; river, Pictou county, N.S. (Not Middle river of Picton.)

Middle Caledonia. See Caledonia.

MIDJIK; point, on east side of Passamaquoddy bay, N.B. (Not Midgic, Midjic, nor Mijic bluff.

Mijic See Midjik.

MILLE VACHES; bay, point, and river, Saguenay county, Que. (Not Saut de Moûton river.)

MINNEWAKAN; post village, Posen municipality, Man.

MISCOU; island, harbour, and point, Gloucester county, N.B. (Not Miscow, Mya, nor North Mya.)

Mistassibi. See Muskosibi.

MISTIKUS; lake, Rimouski county, Que. (Not Mistigouche nor Mistigougèche.)

MOISIE; bay, point, river, rock, and shoal, Saguenay county, Que. Not Moisi nor Moisic.)

MOLUS; river, tributary to Richibucto river, Kent county, N.B. (Not Moulie's.

MONSOMSHI; lake, on Severn river, Keewatin. (Not Mon-som-shi-pin-net.)

MONTAGUE; village, Kings county, P.E.I. (Not Montague Bridge.)

MONTEBELLO; railway station and village, Labelle county, Que. (Not Monte Bello.)

MOOSEJAW; creek and town, Assiniboia. (Not Moose Jaw.)

Mooshaulagan. See Mushalagan.

MORRIS; river, tributary to Red river, southern Manitoba. (Not Boyne, Iles de Bois, nor Scratching.)

Mouchalagan. See Mushalagan.

Moulie's See Molus.

Mud. See Chilako.

MUDJATIK; river, tributary to Churchill river, north of Ile a la Crosse, Atha. (Not Caribou nor Mudjatick.)

MUNRO; mountain, east of Atlin lake, B.C.

MUSHALAGAN; lake, Saguenay county, Que. (Not Mooshaulagan nor Mouchalagan.)

MUSKOSIBI; river, Lake St. John county, Que. (Not Mistassibi.)

Muskrat. See Manigotagan.

MUSKWARO; point and river, Saguenay county. (Not Musquarro.)

Musquarro. See Muskwaro.

MUSSEN; mountain, near southern end of Atlin lake, B.C.

MYA; point, Shippigan island, Gloucester county, N.B. (Not South Mya.)

Mya. See Miscou.

N

Naas. See Nass.

Nabesippi. See Nabisipi.

NABISIPI; river, Saguenay county, Que. (Not Nabesipi nor Nabesippi.)

Nacawicac. See Nackawic.

NACKAWIC; river and village, York county, N.B. (Not Nacawicac nor Nackawick.)

Najualand. See Najwalwank.

NAJWALWANK; lake, Quebec county, Que. (Not Kajoualwang nor Najualand.)

NASS; bay and river, north of Skeena river, Pacific coast, B.C. (Not Naas, Nasse, nor Naas harbour.)

NATASHKWAN; harbour, point, and river, Saguenay county, Que. (Not Natashquan.)

Nepisiguit. See Nipisiguit.

Nesto. See Hippa.

NETLEY; creek and lake, south of lake Winnipeg, Man. (Not Nettly nor Nipuwin.)

NEWBURG; post village and railway station, Carleton county, N.B. (Not Newburgh Junction.)

NEWTOWN; village, Kings county, N.B. (Not New Town.)

NEWTOWN; village, Guysborough county, N.S. (Not Newton nor New Town.)

New Wiltshire. See Wiltshire.

North Wiltshire. See Wiltshire.

Nickadow. See Nigadu.

NIGADU; river and village, Gloucester county, N.B. (Not Nickadow, Nigado, nor Nigadoo.)

Niganishe. See Ingonish.

NIMPKISH; lake and river, in northwest part of Vancouver island, B.C. (Not Karmutsen lake nor Kla-anch river.)

NIPISIGUIT; lake and river, emptying into the bay of same name, Gloucester county, N.B. (Not Nepisiguit, Nipisiquit, nor Nipisighit.)

Nipuwin. See Netley.

NOMINING; lake, Labelle county, Que. (Not Nominingue.)

North. See Hall.

North. See Old Factory.

NORTH DUCK; river, flowing into Duck bay, lake Winnipegosis, Man. (Not Duck River North.)

North Mya. See Miscou.

O

OAKBANK; post village, east of Winnipeg, Man. (Not Oak Bank.)

OBASHING; lake, Pontiac county, Que. (Not Big Obashing.)

Observation. See Jupiter.

OISEAU; lake and river, emptying into Bonnet lake, east of lake Winnipeg, Man. (Not Bird.)

O'KEEFE ; mountain, between Sloko and Silver Salmon rivers, B.C.

OLD FACTORY ; river, empties into east side of James bay, Ungava. (Not North.)

OLDMAN ; river, tributary to Belly river, Alta. (Not Old Man's.)

OLD WIVES (group) ; 'Chaplin' and 'Johnston' lakes, in southern Assiniboia.

OLOMANOSHIBO ; river, Saguenay county, Que. (Not Olomanosheebo nor Olomonasheebou.)

OPINAKA ; river, tributary to East Main river, Ungava. (Not Opinaca or Straight.)

OPINNAGAU ; river, north of Ekwan river. Keewatin. (Not Upinnakaw.)

OPONASK ; lake, northeast of Sachigo lake, Keewatin. (Not Little Sachigo.)

ORIGNAL ; bay and cape, Rimouski county, Que. (Not Arignole.)

ORLEANS ; P.O., Gloucester township, Carleton county, Ont. (Not St. Joseph d'Orleans.)

OROMOCTO ; island, lake, river, and village, in southwestern New Brunswick. (Not Oronocto.)

Oronocto. See Oromocto.

Ouasicmska. See Washimeska.

P

PAINSEC ; post village and railway station, Westmorland county, N.B. (Not Painsec Junction.)

PAKOWKI ; lake, in southwestern Assiniboia. (Not Pakokee, Pak-oghkee nor Peekopee.)

PAPINEAU ; lake, Labelle county, Que. (Not Lac du Commandant.)

PARADISE ; mountain peak, south of Sloko river, Cassiar, B.C.

PARRSBORO ; town, Cumberland county, N.S. (Not Parrsborough.)

PASHASHIBU ; bay, Saguenay county, Que. (Not Pashasheeboo.)

PASQUIA ; river, empties into Saskatchewan river, below Carrot river, Sask. (Not Basquia.)

Pawghtchewan. See Powgulchuan.

Peashtcebec. See Piashti.

Peckagomique. See Becaguimec.

Peckopee. See Pakowki.

PEGGY COVE ; village, Halifax county, N.S. (Not Peggy's Cove.)

PELEE ; island and point, Essex county, Ont. (Not Peleé, Pointe Peleé, nor Pele.)

Pelican. See Primeau.

PENETANGORE ; river, emptying into lake Huron at Kincardine, Bruce county, Ont.

PENTECÔTE ; river, Saguenay county, Que. (Not Pentecost.)

Pepechekau. See Pipishikau.

Pequaket. See Pikwaket.

PERIBONKA ; river, emptying into lake St. John, Que. (Not Peribonca.)

PETERS ROAD ; village, Kings county, P.E.I. (Not Peter's Road.)

PETIHNUE ; peninsula, Great Slave lake, Mackenzie. (Not Peth-the-nu-eh.)

PETITCODIAC ; river, Albert and Westmorland counties, N.B. (Not Petcoudiac nor Petit Coudiac.)

PETIT ROCHER ; post village, Gloucester county, N.B. (Not Petite Roche nor Petite Rocher.)

PEVERIL ; mountain peaks, southwest of Goodwin creek, Cassiar, B.C.

PIASHTI ; bay and river, Saguenay county, Que. (Not Peashte-bai, Piastre bay, nor Peashtebee river.)

Piastre. See Piashti.

Pickwaket. See Pikwaket.

PIKAPAO ; river, tributary to Moisie river, Saguenay county, Que. (Not Pikopao.)

PIKITIGUSHI ; river, flowing into north end of Nipigon lake, Ont. (Not Pickitigouching or Muddy.)

Pikopao. See Pikapao.

PIKWAKET ; brook and mountain, Kings county, N.B. (Not Pequket nor Pickwaket.)

Pine. See Clark.

PINEROOT ; river, flowing into Athapapuskow lake, Sask.

PINK ; river, flowing northeasterly into Reindeer lake, Atha. (Not Vermilion.)

PINTO ; creek, north of Wood mountain, Assa. (Not Pinto Horse.)

PIPISHIKAU ; river, Saguenay county, Que. (Not Pepechekau.)

PIPMAKAN ; lake, Chicoutimi county, Que. (Not Pipmaukin nor Pipmakan.)

PLATEAU ; creek, flowing into Torres channel, Atlin lake, B.C.

Pocmouche. See Pokemouche.

Pocowagamis. See Pokowagamis.

Pointe de Bute. See Pont à Buot.

POINT EDWARD ; town, Lambton county, Ont.

POINTE LA GARDE ; village, Bonaventure county, Que. (Not Pointe à la Garde.)

POINT SAPIN ; post village, Kent county, N.B.

POINT WOLF ; town, Albert county, N.B. (Not Point Wolfe.)

POKEMOUCHE ; river, Gloucester county, N.B. (Not Pocmouche nor Pockmouche.)

POKIOK ; river and village, York county, N.B. (Not Pokiock nor Poquiock.)

POKOWAGAMIS ; lake and river, tributary to Eel river, York county, N.B. (Not Pocowagamis nor Pocowogamis.)

PONT À BUOT ; village, Westmorland county, N.B. (Not Point de Bute nor Pointe de Bute.)

Poquiock. See Pokiok.

PORT DANIEL ; harbour and village, Bonaventure county, Que. (Not Port Daniel East nor St. George Port Daniel.)

PORT ELGIN ; town, Bruce county, Ont.

PORTER ; lake, between Atlin and Gladys lakes, Cassiar, B.C.

PORT HEBERT; village, Shelburne county, N.S. (Not Port Ebert, Big Port le Bear, Big Port l'Hebert, nor Port L'Hebert.)

PORT JOLI; village, Queens county, N.S. (Not Port Jolie.)

PORT LATOUR; village, Shelburne county, N.S. (Not Port la Tour, nor Port Letour.)

Port Matoon. See Port Mouton.

Port Medway. See Medway.

PORT MOUTON; village, Queens county, N.S. (Not Port Matoon.)

POWGULCHUAN; lake, Thunder Bay district, Ont. (Not Pawghtchewan, Powgulchawan, nor Shallow Current.)

PRIM; point, at entrance to Annapolis basin, Digby county, N.S. (Not Rogers.)

PRIMEAU; lake, an expansion of Churchill river, Athabaska. (Not Pelican.)

PRINCETOWN; village, Prince county, P.E.I. (Not Prince Town.

Q

Quadacha. See Kwadacha.

Quancca. See Kwadacha.

Quatawamkedgewick. See Kedgwick.

QUETACHU; bay, Saguenay county, Quebec. (Not Quetachoo.)

QUIO; railway station, river, and village, Pontiac county, Que, (Not Quyon.)

R

RAPIDE DE FEMME; post village, Victoria county, N.B. (Not Rapid de Femme nor Rapide des Femmes.)

RAQUETTE; river, Vaudreuil county, Que.

Rat Portage lake. See Manigotagan.

Red Deer. See Biche.

REXTON; town, Kent County, N.B. (Not Kingston.)

Richmond. See Malpeque.

RICHMOND; village, Carleton county, N.B. (Not Richmond Corner.)

RIGOLET; settlement, at narrows of Hamilton inlet, Ashuanipi district, Que. (Not Rigoulette.)

RIVIÈRE DES CHUTES; village, Carleton county, N.B. (Not River de Chute.)

ROCHE PERCÉE; railway station, southeastern Assiniboia. (Not Roche Percé.)

ROCKCLIFFE; village, Renfrew county, Ont. (Not Rockliffe.)

ROES WELCOME; sound, in northwestern part of Hudson bay, Keewatin. (Not Rowe's Welcome nor Sir Thomas Rowe's Welcome.)

Rogers. See Prim.

ROMAINE; river, flowing into the lower St. Lawrence, opposite Mingan islands, Que.

ROSEBUD; river, tributary to Red Deer river, Alta. (Not Arrowwood.)

ROSS; isthmus and peninsula, northeasterly part of Franklin isthmus, Keewatin. (Not James Ross.)

ROUGE; lake, Wolfe township, Terrebonne county, Que. (Not Lac de la Rouge.)

Rowes. See Roes.

RUSAGONIS; river and village, Sunbury county, N.B. (Not Rusagornis nor Rushagornis.)

Rushagornis. See Rusagonis.

S

Sable. See Ausable.

SACHIGO; lake and river, tributary to Severn river, Keewatin. (Not Achigo.)

STE. ANGÉLE DE RIMOUSKI; village, Matane county, Que. (Not Ste. Angèle de Mercie.)

ST. ANN; bay, harbour and village, Victoria county, N.S. (Not St. Anne nor St. Ann's.)

STE. ANNE DES MONTS; village, Gaspé county, Que. (Not Ste. Anne de Monts.)

ST. ANTOINE DE TILLY; village, Lotbinière county, Que. (Not St. Antoine, Lotbinière.)

St. Antoine, Lotbinière. See St. Antoine de Tilly.

ST. CHARLES DE CAPLAN; village, Bonaventure county, Que. (Not St. Charles Caplin).

ST. CLAIR; river and lake, at the south end of lake Huron, Ont.

ST. CROIX; lake, Hants county, N.S. (Not St. Croix River lake.)

ST. GEORGE; lake, west of lake Winnipeg, Man. (Not St. George's.)

St. George. See George.

St. George Port Daniel. See Port Daniel.

ST. HENRI; post village, Lévis county, Que. (Not St. Henri Station).

ST. JOHN; island, lake Melville, Ashuanipi district, Que. (Not St. Johns.)

ST. JOSEPH; village, south of Goderich, Huron county, Ont.

St. Joseph d'Orleans. See Orleans.

ST. MARGARET; bay, Halifax county, N.S. (Not St. Margaret's.)

ST. MARTIN; lake, northeast of lake Manitoba, Man. (Not St. Martin's.)

ST. MARY; river, tributary to Belly river, southern Alberta. (Not St. Mary's.)

ST. MARY; post village, Kent county, N.B. (Not St. Mary's.)

ST. MARY; bay and cape, Digby county, N.S. (Not St. Mary's.)

ST. MARY; river, Guysborough county, N.S. (Not St. Mary's.)

St. Patrick's. See San Josef.

ST. PAUL; post village, Kent county, N.B. (Not St. Pauls.)

St. Paul's Bay. See Bay St. Paul.

ST. PETER; bay, river, and railway station, Kings county, P.E.I. (Not St. Peter's nor Head of St. Peter's bay.)

St. Peter; island, in Hillsborough bay, Queens county, P.E.I. (Not St. Peter's.)

St. Roch des Aulnaies; village, L'Islet county, Que. (Not St. Roch des Aulnets.)

St. Sixte; lake and river, Lochaber township, Labelle county, Que. (Not Sincique.)

Salem; village, Cumberland county, N.S. (Not Salent.)

Salmon. See Kinonge.

Sanford; mountain, southwest of Snowdon range, Cassiar, B.C.

San Josef; bay, near northwest end of Vancouver island, B.C. (Not San Joseph nor St. Patrick's.)

Sault au Cochon; river, Saguenay county, Que. (Not Saut de Cochon.)

Saut de Mouton. See Mille Vaches.

Savasse Berry. See Serviceberry.

Sawbill. See Sheldrake.

Scotsman; bay, King's county, N.S. (Not Scots, Scot's, nor Scotman's.)

Scott; point, north side of entrance to Baie du Doré, Bruce county, Ont.

Scougall; bank, southwest of MacGregor point, Bruce county, Ont.

Scratching. See Morris.

Seechelt; inlet, north of the strait of Georgia, B.C. (Not Sechelt.)

Seeley; village, Hastings county, Ont. (Not Seeley's Bay nor Seely's Bay.)

Seepanock. See Sipanok.

Semiamu; bay, east of Boundary bay, B.C. (Not Semiahmoo.)

Serviceberry; creek, tributary to Rosebud river, Alta. (Not Savasse Berry.)

Setidgi. See Sitidgi.

Shabumeni; lake, southwest of Cat lake, Keewatin. (Not Shaboomene.)

Shallop; creek, south side of Anticosti island, Que. (Not Chaloupe river nor Jupiter.)

Shallow Current. See Powgulchuan.

Shaughnessy; mountain, north of Hermit mountain, Selkirk range, B.C.

Shawenegan; falls, lake, river, township, and village, St. Maurice county, Que. (Not Shawinigan nor Shewanegan.)

Shekatika; bay, west of Belleisle strait, Que. (Not Shecatica.)

Shelburne; bay and harbour, Shelburne county, N.S. (Not Shelburne Harbour.)

Sheldrake; river, Saguenay county, Que. (Not Sawbill.)

Shell; brook, tributary to Sturgeon river, north of Prince Albert, Sask. (Not Shell river.) Also Shell Brook P.O.

Shemogue; harbour and town, Westmorland county, N.B. (Not Great Shemogue nor Bristol.)

Shemong. See Chemong.

Shiktahawk; river, tributary to St. John river, Carleton county, N.B. (Not Shictahawk, Shikatehawk nor Shikithawk.)

Shippigan; island and village, Gloucester county, N.B. (Not Shippegan.)

Shoulie. See Shulie.

Shoushwap. See Shuswap.

Shulie; river and village, Cumberland county, N.B. (Not Shoulie.)

Shuswap; river, flowing into Shuswap lake, Yale district, B.C. (Not Shoushwap nor Spallumcheen.)

Sikanni Chief; river, tributary to Fort Nelson river, B.C. (Not Sicannie Chief.)

Silver Salmon; river, tributary to Nakina river, Cassiar, B.C.

Similkameen; river, Yale district, B.C. (Not South Similkameen.)

Sincique. See St. Sixte.

Sipanok; channel, between Carrot and Saskatchewan rivers, Sask. (Not Seepanok nor Seepanock.)

Sitidgi; lake, north of Great Bear lake, Mackenzie. (Not Setidgi.)

Skaloo. See Skelu.

Skelu; inlet, Graham island, Queen Charlotte islands, B.C. (Not Skaloo.)

Skidegate; channel and inlet, between Graham and Moresby islands, Queen Charlotte islands, B.C.

Skinner Pond; village, Prince county, P.E.I. (Not Skinner's Pond.)

Sloko; inlet, island, lake, mountain, and river, Cassiar, B.C. (Not Slocoh.)

Small. See Little Bow.

Snowdon; range of mountains, southeast of Gladys lake, Cassiar, B.C.

Solomons Temples; islands, north of Charlton island, James bay, Ungava. (Not Solomon Temple.)

Souris; town, Kings county, P.E.I. (Not East Souris.)

South Duck; river, flowing into Duck bay, lake Winnipegosis, Man. (Not Duck River South.)

South Joggins. See Joggins.

South Joggings. See Joggins.

South Mya. See Mya.

South Similkameen. See Similkameen.

Southwest; point, Anticosti island, Que. (Not South West.)

Spallumcheen. See Shuswap.

Spillimacheen; river, tributary to Columbia river, E. Kootenay, B.C. (Not Spill En Mee Chene nor Spillimichene.)

Split; cape, Kings county, N.S. (Not Splitt.)

Springhill; village, Compton county, Que. (Not Spring Hill.)

Sprucegrove; P.O., west of Edmonton, Alta. (Not Spruce Grove.)

Stanley; town, York county, N.B. (Not Stanley Village.)

Steeprock; river, flowing into northerly end of lake Winnipegosis, Man. (Not Steep Rock.)

Stirling; lake, railway station, and village, southeastern Alberta. (Not Sterling nor Eighteen Mile lake.)

STONY; islet, north of Kincardine, Bruce county, Ont.

STONYPLAIN; P.O., west of Edmonton, Alta. (Not Stony Plain.)

STOVEL; mountain peak, south of Talaha bay, Taku arm, Cassiar, B.C.

Straight. See Opinaka.

SUGARBUSH; lake, Addington township, Labelle county, Que. (Not Sugar Bush).

SULLIVAN; lake, south of Battle river, Alta. (Not Sullivan's.)

SUNDAY; mountain peak, east of Taku arm, Cassiar, B.C.

SUTTON; lake, north of Ekwan river, Keewatin. (Not Sutton Mill lake.)

T

Tabasintac. See Tabusintac.

Tabisintac. See Tabusintac.

TABUSINTAC; river and village, Northumberland county, N.B. (Not Tabasintac nor Tabisintac.)

TADOUSSAC; township and village, Saguenay county, Que. (Not Tadousac.)

Taku. See Graham.

TANGIER; harbour, island, lake, and town, Halifax county, N.S. (Not Tangier Grand lake.)

TATLAYAKO; river, tributary to Bella Coola river, Coast district, B.C. (Not Tatlahco nor Tatlayoco.)

TAYSEN; lake, northwest of Ruth lake, Cassiar, B.C.

Temiscaming. See Timiskaming.

TERRAHINA; creek, tributary to Nakina river, Cassiar, B.C. (Not Terra Heena.)

TETAGOUCHE; river, Gloucester county, N.B. (Not Teteagouche nor Tête à Gouche.)

Teteagouche. See Tetagouche.

Thelew. See Thelon.

THELON; river, flowing northeasterly into Dubawnt river, Mackenzie. (Not Ark-e-leenik nor Thelew.)

THETFORD; village and railway station, Megantic county, Que. (Not Thetford Mines.)

Thlewecehodezeth. See Backs.

THIRTYONE-MILE; lake, Labelle and Wright counties, Que. (Not Grand Lac du Commissaires.)

Thomasine. See Tomasine.

THOMPSON; cove, east of cape Spencer, St. John county, N.B. (Not Thompson's)

THREEHILLS; creek, north of Kneehills creek, Alta. (Not Three Hills.)

Tiahn. See Tian.

TIAN; point, Graham island, Queen Charlotte islands, B.C. (Not Tiahn.)

TIMISKAMING; lake, on the boundary between Ontario and Quebec. (Not Temiscaming, Temiskaming, nor Temiscamingue.)

Todnustook. See Tulnustuk.

TOLMIE; reef, between Kincardine and Clark point, Bruce county, Ont.

TOMASINE; river, Pontiac county, Que. (Not Thomasine nor Tomassino.)

Toolnustook. See Tulnustuk.

Tooya. See Tuya.

TORCH; river, flowing into Cumberland lake, eastern Saskatchewan. (Not Big Sturgeon.)

TORRES; channel, between Teresa and Copper islands and west shore of Atlin lake, B.C. (Not West channel, Torres straits, nor Tory inlet.)

TORTUE; river, Saguenay county, Que. (Not Fall.)

Tory. See Torres.

Trout. See Hayes.

TULNUSTUK; river, Saguenay county, Que. (Not Todnustook nor Toolnustook.)

TUSKET; island, Yarmouth County, N.S. (Not Great Tusket.)

TUYA; lake and river, tributary to Stikine river, Cassiar, B.C. (Not Tooya.)

U

Upinnakaw. See Opinnagau.

Upper Kootanie. See Duncan.

UPPER LAHAVE; village, Lunenburg county, N.S. (Not Upper La Have.)

V

VALLEYVIEW; P. O. in eastern Assiniboia. (Not Valley View.)

Vermilion. See Pink.

VIOLADALE; post village, Marquette county, Man. (Not Viola Dale.)

W

WABAMUN; lake, south of St. Ann, northern Alberta. (Not White Whale.)

Wabaskoutynk. See Kempt.

WABASSI; brook, Templeton township, Wright county, Que. (Not Wabassee.)

Wahnapitae. See Wanapitei.

Wai-nusk. See Winisk.

WANAPITEI; lake, railway station, and river, Nipissing district, Ont. (Not Wahnapitae.)

WANIPIGOW; river, emptying into the east side of lake Winnipeg, Man. (Not Hole.)

WAPUSTAGAMU; lake, on west branch of St. Augustine river, Saguenay county, Que. (Not Wapustagamoo.)

WARPATH; river, emptying into the west side of lake Winnipeg, Man. (Not War Path.)

WASHAGAMI; river, tributary to Ekwan river, Keewatin. (Not Washegummy.)

WASHIKUTI; bay and river, Saguenay county, Que. (Not Wash-sheecootai.)

WASHIMESKA; river, Lake St. John county, Que. (Not Ouasiemska nor Wassienska.)

Wassienska. See Washimeska.

WATERTON; lake and river, southern Alberta. (Not Chief Mountain lake nor Kootenai.)

Watcheeshoo. See Watshishu.

WATSHISHU; river, Saguenay county, Que. (Not Watcheeshoo nor Watsheeshoo.)

WATT; railway station, Charlotte county, N.B. (Not Watt Junction.)

Watt Junction. See Watt.

WAUGHS; river, Colchester county, N.S. (Not Waugh's.)

WAVY; lake, north of Battle river, Alta. (Not Wave.)

WAWIAG; river, headwaters of Maligne river, Rainy River and Thunder Bay districts, Ont. (Not Kawawiagamak.)

WAYAGAMAK; lake, Champlain county, Que. (Not Wayagamack.)

Weenisk. See Winisk.

WELSH; bank, north of Scott point, Bruce county, Ont.

WENASAGA; river, flowing into Lac Seul, Keewatin.

WEST; river, Bonaventure county, Que. (Not West Port Daniel.)

WEST; river, Pictou county, N.S. (Not West River of Pictou.)

West. See Torres.

WEST ARROWWOOD; creek, tributary to Bow river, Alta. (Not West Arrow-wood.)

WESTERN; river, flows into Coronation gulf, Mackenzie. (Not Back's Western.)

West Port Daniel. See West.

WHITE MAN; pass, in the Rocky mountains, B.C. (Not White Man's.)

White Mud. See Frenchman.

WHITESAND; P. O. and river, northeastern Assiniboia. (Not White Sand.)

White Whale. See Wabamun.

WHOLDAIA; lake, an expansion of Dubawnt river, Mackenzie. (Not Wholdiah.)

WILLOWBUNCH; lake, and P. O. southern Assiniboia. (Not Willow Bunch.)

WILSON CORNERS; P.O., Wakefield township, Wright county, Que. (Not Wilson's Corners.)

WILTSHIRE; village, Queens county, P.E.I. (Not New Wiltshire nor North Wiltshire.)

WINDY; lake, southwest of Oxford lake, Keewatin.

WINISK; lake and river, east of Severn river, Keewatin. (Not Wai-nusk nor Weenisk.

WINNIPEGOSIS; a large lake in Manitoba. (Not Winnipegoos nor Winnipegoosis.)

WOOD; river, north of Wood mountain, Assa. (Not Wood Mountain river.)

Wood. See Jacob.

Wood Mountain. See Wood.

WRIGHT; point, north of Goderich, Huron county, Ont.